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SIXTY-FIRST  
ANNUAL REPORT

OF THE

President and Directors

TO THE

STOCKHOLDERS

OF THE

Baltimore and Ohio Railroad Co.

FOR THE YEAR ENDED 30th SEPTEMBER, 1887.

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BALTIMORE:

Press of JOHN COX'S SONS, Cor. Pratt Street and Spear's Wharf.



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# Sixty-first Annual Report.

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Office of the Baltimore and Ohio Railroad Company,

*Baltimore, October 1st, 1887.*

The President and Directors submit to the Stockholders of the Baltimore and Ohio Railroad Company the following statement of its affairs for the fiscal year ended 30th September, 1887.

The Reports of the Treasury Department, and of the Managers of the systems east and west of the Ohio river, are appended.

## THE REVENUES.

The Revenues of the Main Stem, including the Winchester & Potomac, Winchester & Strasburg, the Strasburg & Harrisonburg, the Metropolitan Branch, the Washington City & Point Lookout, the Fairmont, Morgantown & Pittsburgh, and South Branch Railroads, have been.....	\$11,201,348 34
Of the Washington Branch.....	380,399 97
" Parkersburg Branch.....	676,830 29
" Central Ohio Division.....	1,283,526 28
" Lake Erie Division.....	1,080,463 04
" Chicago Division.....	2,070,033 13
" Wheeling and Pittsburgh Division.....	465,609 77
" Newark, Somerset and Straitsville R. R....	183,010 48
" Pittsburgh and Connellsville Railroad (Pittsburgh Division).....	2,599,073 84
" Philadelphia Division.....	718,740 76
Total.....	\$20,659,035 90
Showing an increase, compared with 1886, of.....	2,236,598 71

## I.—OF THE MAIN STEM.

The Assets and Liabilities of the Company are shown in statement A of the Treasurer. The Earnings and Working Expenses are shown in statement B.

The following analytic statement is given, in order to furnish particulars of expenses in comparison with the two preceding years.

## MAIN STEM.

Statement of the Earnings and Working Expenses for the Fiscal Years 1885, 1886 and 1887, including the Winebester and Potomac, Winchester and Strasburg, the Strasburg and Harrisonburg, the Metropolitan Branch, the Washington City and Point Lookout, the Fairmont, Morgantown and Pittsburgh, and South Branch Railroads.

	1885.	1886.	1887.
EARNINGS.	\$9,733,251 70	\$9,846,613 04	\$11,201,348 34
<b>EXPENSES.</b>			
General Expenses.....	\$203,391 86	\$205,221 71	\$245,118 67
Losses by Accidents, &c.....	31,356 05	71,862 66	61,687 80
Expenses of Transportation.....	2,720,050 96	2,509,036 26	3,145,688 84
Repairs of Railway.....	691,162 54	680,051 95	734,854 02
Repairs of Water Stations.....	14,955 37	18,887 77	23,698 94
Repairs and Construction of Depots.....	161,231 04	210,217 52	211,313 83
Repairs of Bridges.....	71,550 99	86,368 03	90,379 63
Repairs of Telegraph Lines.....	165,582 41	35,826 27	29,478 83
Repairs of Stationary Machinery.....	79,512 92	70,928 17	79,304 29
Watching Cuts.....	32,433 47	39,023 61	38,486 28
Watching Tunnels.....	4,590 43	4,362 53	5,695 16
Watching Bridges.....	16,702 35	12,810 24	12,788 29
Pumping Water.....	30,013 73	27,261 36	29,263 51
Repairs of Locomotives.....	475,205 09	479,857 75	619,545 53
Repairs of Passenger Cars.....	202,849 55	282,740 80	328,957 92
Repairs of Burden Cars.....	416,224 59	609,680 04	592,960 84
Cleaning Engines and Cars.....	92,061 67	102,701 25	156,235 88
Contingent Expenses of the Machinery Department...	8,475 00	12,233 31	14,466 41
Fuel.....	323,431 11	341,025 00	411,670 88
Preparing Fuel and Filling Tenders.....	22,560 42	20,150 85	26,409 31
	\$5,763,351 55	\$5,820,247 08	\$6,858,004 78
Earnings more than Expenses.....	\$3,969,900 15	\$4,026,365 96	\$4,343,343 56
Working Expenses.....	59.21 per et.	59.10 per et.	61.22 per et.

It is shown that the earnings of the Main Stem and the Branches stated, in comparison with the fiscal year 1886, have increased \$1,354,735.30, and the working expenses have increased \$1,037,757.70, making a comparative increase of the net profits of \$316,977.60.

The expenses of working and keeping the roads and machinery in repair amounted to \$6,858,004.78, being 61.22 per cent. upon the earnings, showing an increase of 2.12 per cent. compared with the previous year.

A semi-annual cash dividend of four per cent. upon the capital stock was paid on the 1st of November, 1886, and of four per cent. on the 17th of May, 1887.

The Profit and Loss Account shows an increase for the past fiscal year of \$36,258.85. It will be seen by this account that the Surplus Fund, which represents invested capital derived from net earnings, and which is not represented by either stock or bonds, now amounts to \$48,083,720.01.

The payments for investments on account of the Sinking Funds for the redemption of the Sterling Loans due in 1895, 1902, 1910 and 1927, during the year amounted to \$174,458.98, which at \$4.84 per pound sterling make £36,045..4..10. The annual appropriations for these Sinking Funds, including the Consolidated Mortgage Bonds of the Pittsburgh and Connellsville Railroad Company due in 1926, are \$337,707.02. The increments of all these Sinking Funds on the 30th September, 1887, are \$397,754.80, making a total of appropriations, and of increments for the fiscal year, of \$735,461.82. There is due all the Sinking Funds the sum of \$543,505.07, as shown in the Asset and Liability table A.

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In accordance with the agreement with the City of Baltimore, the twelfth annual payment, namely, \$40,000, of the principal of the bond for one million dollars given for the purchase of the interest of the City in the Pittsburgh and Connellsville Railroad Company, has been made, thus reducing this obligation to \$520,000.

The following shows the aggregate of payments made on account of the principal, and the investments for Sinking Funds on account of the debts stated, namely :

Mortgage Loan, redeemable in 1880.....	\$122,000 00
Mortgage Loan, redeemable in 1885.....	790,000 00
Bonds of the Northwestern Virginia Railroad Company for \$500,000, endorsed by the Baltimore and Ohio Railroad Company, payable in 1885 .....	360,000 00
Loan of the City of Baltimore.....	2,425,000 00
Sterling Loan, redeemable in 1895.....	2,202,412 00
Sterling Loan, redeemable in 1902.....	2,807,988 00
Sterling Loan, redeemable in 1910.....	1,607,904 00
Sterling Loan, for the Baltimore and Ohio and Chicago Companies, redeemable in 1927 .....	416,240 00
Purchase of the interest of the City of Baltimore in the Pittsburgh and Connellsville Railroad Company.....	480,000 00
Sinking Fund of the Pittsburgh and Connellsville Railroad Company.....	282,044 00
Sinking Fund of the Baltimore, Washington and Alexandria Branch of the Washington City and Point Lookout Railroad Company.....	61,564 24
Total.....	\$11,555,152 24

The coal trade of the Main Stem shows an aggregate of 4,209,477 tons, which includes 553,114 tons for the Company's supply. Of this quantity that transported

for the public, delivered in Baltimore, is 2,568,058 tons, and that delivered at local and western points, 1,088,-305 tons. In the fiscal year, 2,137,227 tons of coke and coal were transported on the Pittsburgh Division, 1,168,859 tons of coal on the Trans-Ohio Divisions, and 363,045 tons of coal on the Philadelphia Division. The aggregate of coal and coke thus transported, including all Divisions, was 7,878,608 tons, showing an increase for the year of 448,241 tons.

The tonnage of through merchandise East and West has been 3,537,207 tons, whilst in the preceding year it was 2,731,119 tons, showing an increase of 806,-088 tons. 1,274,542 barrels of flour and 12,977,035 bushels of grain were brought to Baltimore during the fiscal year, being an increase of 522,392 barrels of flour and a decrease of 741,393 bushels of grain as compared with the preceding year. Of this aggregate of grain, 6,600,027 bushels were wheat, 5,223,770 bushels were corn and 848,431 bushels were oats, being an increase of 3,162,868 bushels of wheat, a decrease of 4,250,505 bushels of corn and an increase of 164,263 bushels of oats. In live stock, the traffic has been 43,220 tons, a decrease of 27,000 tons, and in lumber brought to Baltimore 76,103 tons, a decrease of 16,728 tons.

The tonnage of through merchandise East and West, was:

For 1880 . . .	1,980,397 tons.	For 1884 . . .	2,275,252 tons.
“ 1881 . . .	2,014,110 “	“ 1885 . . .	2,338,147 “
“ 1882 . . .	2,043,227 “	“ 1886 . . .	2,731,119 “
“ 1883 . . .	2,108,325 “	“ 1887 . . .	3,537,207 “

All the tracks of the Main Stem and of nearly all the Branches east of the Ohio river, are now laid with steel rails. The increased cost of steel substituted for

iron rails has been uniformly charged to the Repair Account.

The condition of the road bed, tracks and engines has been maintained at a high standard. A large number of new sleeping coaches, parlor and thoroughfare cars have been added, replete with every modern improvement and convenience.

Attention is invited to the Reports of the Managers east and west of the Ohio river, in which will be found much interesting information in regard to the working of the roads, the increase of plant and accommodations, and improvements made during the year.

77 engines and 3963 cars have been acquired and built at Company's shops during the year. The cost of these engines and cars has been \$2,734,034.74. Of the foregoing, there have been placed on the line, under the terms of the Car Trust, 72 locomotive engines, and the following cars: 2356 house, 250 hopper gondola, 3 refrigerator express, 5 baggage, 15 passenger, 10 sleeping and 10 parlor. 234 engines and 2434 cars have been thoroughly repaired, the cost of which, \$802,990.96 has been charged to the Repair Account. 1801 cars have been repainted, and 640 cars have had their capacity increased to 20 tons.

## II.—OF THE WASHINGTON BRANCH.

The financial condition of the Washington Branch is shown by the statements of the Treasurer, D. E. and F. It will be seen by statement E that the earnings were \$380,399.97, showing an increase of \$55,079.37 compared with the previous year. The expenditures charged, according to the system explained in previous annual reports, amount to \$88,839.11, being for improvements

and for repairs of railway, depots, water stations and bridges, and for pumping water. The partial expenditures charged being deducted from the revenue stated, the sum of \$291,560.86 remains, an increase of net earnings, compared with the preceding year, of \$57,055.25. The expenditures upon the Washington Branch show a decrease, compared with the preceding year, of \$1,975.88. In order to make this Branch as perfect as possible, important improvements continue to be made, particularly in the substitution of stone for gravel ballast. It is designed to make the road free from dust, and to perfect it in every practicable form. Semi-annual dividends of five per cent. upon the capital stock were paid on the 1st of November, 1886, and on the 20th of April, 1887.

### III.—OF THE PARKERSBURG BRANCH RAILROAD COMPANY.

Statement G of the Treasurer shows that the earnings of this road for the fiscal year were \$676,830.29, and the working expenses \$587,872.93, showing net \$88,957.36. The earnings were \$13,786.54 more than in the previous year, and the expenses increased \$86,176.43, showing net decrease, compared with the previous year, of \$72,389.89.

The aggregate earnings, working expenses, and net results of the Main Stem, including the Winchester and Potomac, Winchester and Strasburg, the Strasburg and Harrisonburg, the Metropolitan Branch, the Washington City and Point Lookout, the Fairmont, Morgantown and Pittsburgh, and South Branch Railroads; of the Washington Branch and the Parkersburg Branch Railroads; of the Central Ohio, Lake Erie,

Pittsburgh, Chicago, Philadelphia and Wheeling and Pittsburgh Divisions; and of the Newark, Somerset and Straitsville Railroad for the fiscal year were, viz:

	Earnings.	Expenses.	Deficit.	Net Earnings.
Main Stem, including the Winchester and Potomac, Winchester and Strasburg, the Strasburg and Harrisonburg, the Metropolitan Branch, the Washington City and Point Lookout, the Fairmont, Morgantown and Pittsburgh, and South Branch Railroads.....	\$11,201,348 34	\$6,858,004 78		\$4,343,343 56
Washington Branch.....	380,399 97	88,839 11		291,560 86
Parkersburg Branch.....	676,830 29	587,872 93		88,957 36
Central Ohio Division.....	1,283,526 28	753,157 85		530,368 43
Lake Erie Division.....	1,080,463 04	788,599 25		291,863 81
Chicago Division.....	2,070,033 13	1,988,911 09		81,122 04
Pittsburgh Division.....	2,599,073 84	1,594,810 23		1,004,263 61
Wheeling and Pittsburgh Division .....	465,609 77	484,539 90	\$18,930 13	
Newark, Somerset and Straitsville Railroad .....	183,010 48	180,434 51		2,575 97
Philadelphia Division .....	718,740 76	794,961 57	76,220 81	
Working Expenses, 68.34 per et...	\$20,659,035 90	\$14,120,131 20	\$95,150 94	\$6,634,055 64
				95,150 94
				\$6,538,904 70

The Main Stem has been debited with interest on the loans issued on account of the following Companies: The Baltimore and Ohio and Chicago Railroad Companies, loan of 1877; The Parkersburgh Branch Railroad Company, loan of 1879; The Baltimore and Philadelphia Railroad Company, loan of 1883, and the Pittsburgh and Connellsville Railroad Company, loan of 1885. The Main Stem interest has been credited with the entire net earnings of these lines, except in the case of the Pittsburgh and Connellsville Railroad Company, where the net earnings are first applied to the payment of its own fixed charges, the remainder being credited in Main Stem interest.

The passenger earnings on the entire system in 1886 were \$4,276,363.86, and in 1887, \$4,878,575.63—an increase of \$602,211.77.

The tonnage earnings on the entire system in 1886 were \$14,146,073.33, and in 1887, \$15,780,460.27—an increase of \$1,634,386.94.

The aggregate working expenses of the Main Stem, with all Branches and Divisions, were 68.34 per cent. of the whole gross revenues, being 3.01 per cent. more than the preceding year.

The condition of all our lines, their roadbeds, tracks, and structures, has not only been fully maintained, but continuously and permanently improved.

#### THE PITTSBURGH AND CONNELLSVILLE RAILROAD.

The earnings for the year ended Septem-

ber 30, 1887, were ..... \$2,599,073 84

The working expenses for the same period

were ..... 1,594,810 23

being 61.36 per cent. 

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Showing net earnings ..... \$1,004,263 61

The earnings were \$168,988.65 more than those of the previous year, and the expenses increased \$7,146.02, showing net increase compared with the preceding year of \$161,842.63. The decrease in the ratio of working expenses has been 3.97 per cent. as compared with the preceding year.

#### BALTIMORE AND OHIO AND CHICAGO RAILROAD COMPANIES.

The earnings of these companies, known as the Chicago Division of the Baltimore and Ohio Railroad

Company, for the fiscal year were.....\$2,070,033 13  
 The working expenses for the same period

were..... 1,988,911 09

96.08 per cent. being 8.95 per cent. more  
 than the preceding year

The surplus for credit to the account of  
 this Division is..... \$81,122 04

The earnings were \$28,534.52 less than in the previous  
 year, whilst the expenses increased \$160,259.77, showing  
 a comparative decrease of \$188,794.29.

#### GENERAL REMARKS.

On the 17th of August, 1887, a contract was made with the United States Express Company for the sale to it of the Express franchises and privileges of the Baltimore and Ohio system, and for the operation of an express line over all the railways controlled by the Baltimore and Ohio Company. The amount received for the sale of these franchises appears in the Profit and Loss statement C.

The Company being in need of equipment, executed, on the 9th of February, 1887, a Car-Trust Mortgage for \$2,500,000, under which seventy-two locomotive engines have been furnished, and the following cars: 2,356 house, 250 hopper gondolas, 3 refrigerator express, 5 baggage, 15 passenger, 10 sleeping and 10 parlor cars. This transaction is shown in the Asset and Liability table A. A copy of the Car-Trust Mortgage is appended to this report.

Under an arrangement made with a syndicate of eminent bankers, funds sufficient to take care of the floating debt of the Company have been secured, and this debt it is expected will be funded during the com-

ing year, in accordance with a plan which has received the approval of the syndicate.

The Baltimore and Ohio Employes Relief Association continues prosperous and useful. Its membership is now 22,155, being an increase of 1858 over the previous year. During the year its disbursements to members for benefits and on their account for surgical expenses, hospitals, etc., have been \$346,776.27, making the total amount paid by the Association since its inauguration, May 1, 1880, \$1,716,536.86. One hundred and sixty-five names are now on the Pension Fund roll, the disbursements on this account during the year having been \$20,655.72.

There are 1126 depositors in the Savings Fund and Building Feature. The deposits during the year amounted to \$221,893.48. The withdrawals during the same period were \$136,727.73. The total amount received from depositors since August 1, 1882, when this feature was inaugurated, is \$730,559.97. Of this amount, \$288,756.28 has been withdrawn, leaving due depositors on the 30th of September, \$441,803.69. Loans are only made to employes to enable them to secure homes upon the lines of the Baltimore and Ohio Railroad Company, and the security for all such loans is a first mortgage upon the property. The Savings Fund and Building Feature is managed by a Board of five Trustees.

The Board have noted, with much interest, the progress which has been made, from time to time, in deepening and widening the channel leading to the Port of Baltimore. \$100,000 are still required to give a uniform width of 400 feet, but with this width the channel is still too narrow for the large steamships and sail vessels

which now come to Baltimore. The estimated cost of giving to the channel a width of 500 feet, is \$650,000, and in view of the National importance of the question, and the large sections which will be favorably affected, it is hoped that Congress will, at the next session, appropriate the necessary amount to make this improvement for the benefit of commerce.

The Board express with pleasure their continued appreciation of the successful management of the business of the Company through the faithfulness and efficiency of the officers and employes in all departments of the service.

By order of the Board,

W. F. BURNS,

*President pro tem.*

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Treasurer's Annual Statements.

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## A

## STATEMENT OF THE ASSETS AND LIABILITIES OF THE

## ASSETS.

Cost of Road, (including construction of new Stations, Buildings, &c., during the fiscal year).....	\$27,306,952	18
Second, Third and Fourth Tracks.....	6,070,035	38
Rolling Power.....	18,270,018	33
Real Estate.....	2,874,378	97
Equipment B. & O. Car Trust Association.....	2,042,014	20
Ohio River Bridges at Benwood and Parkersburg.....	2,383,682	19
Metropolitan Branch Railroad.....	3,925,436	97
		62,871,918
30,069 Shares of Stock, Baltimore and Ohio and Chicago Railroad Companies, of which 28,900 Shares have been transferred to Trustees for Sterling Loan redeemable in 1927.....	1,503,450	00
Baltimore and Ohio and Chicago Railroad Companies, including advances for construction.....	5,332,421	29
Preferred Stock of Parkersburg Branch Railroad Company.....	5,680,684	94
Stocks and Bonds, including those of Municipal and Railroad Corporations.....	3,244,264	15
Philadelphia Branch and the Baltimore and Philadelphia Railroad Company.....	10,998,194	42
Fairmont, Morgantown and Pittsburgh Railroad Company.....	622,019	44
Ohio and Baltimore Short Line East.....	509,320	19
Baltimore and Ohio Telegraph Company.....	3,884,685	07
Stock of the Washington County Railroad Company.....	766,290	33
Wheeling, Pittsburgh and Baltimore Railroad (consolidated).....	3,138,643	00
Stock of the Winchester and Strasburg Railroad Company.....	593,643	85
Stock of the Washington Branch.....	1,028,000	00
Sinking Fund for the redemption of Loan for account of the Baltimore and Ohio and Chicago Railroad Companies, £86,000 at \$4.84.....	416,240	00
Stock of the Valley Railroad Company of Virginia.....	1,020,000	00
Stock and Preferred Stock of Newark, Somerset and Straitsville Railroad Company.....	296,950	52
Cost of Telegraph Lines on Railroad System exclusive of Main Stem.....	633,520	10
Transferred to and held by Trnstces, viz:		
Stocks and Bonds, including those of Railroad Corporations.....	\$2,360,444	24
Stock of the Central Ohio Railroad Company, as reorganized.....	264,963	18
Stock of the Pittsburgh and Connellsville Railroad Company.....	375,147	54
Mortgage Bonds of the Cincinnati, Washington and Baltimore Railroad Company.....	1,491,127	00
		4,491,581
Baltimore, Washington and Alexandria Branch of the Washington City and Point Lookout Railroad—Sinking Fund transferred to Trustees.....	61,564	24
Permanent Improvements—Lake Erie Division.....	592,817	35
Outstanding Accounts and Loans.....	210,175	92
Permanent Improvements—Central Ohio Division.....	198,804	04
The Pittsburgh and Connellsville Railroad Company.....	1,374,967	85
The Parkersburg Branch Railroad Company.....	710,143	54
The Cincinnati, Washington and Baltimore Railroad Company.....	1,837,722	05
Bills Receivable.....	35,338	40
Uncollected Revenue.....	993,644	41
Materials on hand in the Machinery Department—Main Stem.....	\$1,230,116	90
Trans-Ohi.....	333,416	64
Road Department—Materials on hand—Main Stem.....	\$ 86,578	95
Trans-Ohi.....	90,660	44
TREASURER—Balance on hand in the Treasury, after payment of \$263,233.75 for interest on the Bonds of the Company, which matures October 1st, 1887.....	177,239	39
		360,716
		36
		\$115,148,494
		57

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BALTIMORE &amp; OHIO RAILROAD COMPANY, SEPTEMBER 30TH, 1887.

## LIABILITIES.

Stock.....	\$14,781,600 00
Stock Scrip not funded.....	7,966 00
Preferred Stock, dividends fixed and limited at six per cent.....	5,000,000 00
Surplus Fund—which represents invested capital derived from net earnings, and which is not represented by either Stock or Bonds.....	48,083,720 01
	\$ 67,876,286 01
Loan issued in 1853, redeemable in 1880, extended at 4 per cent.	
Interest January and July.....	578,000 00
Loan issued in 1853, redeemable in 1885, extended to 1935 at 4 per cent. Coupons payable in April and October, originally.....	\$ 2,500,000 00
Less payment on account.....	790,000 00
	1,710,000 00
City Loan at 6 per cent. issued in 1855, redeemable in 1890, interest January, April, July and October, originally.....	\$ 5,000,000 00
Less Sinking Fund in charge of the City of Baltimore.....	2,425,000 00
	2,575,000 00
Bond for purchase of the Interest of the City of Baltimore in the Pittsburgh and Connellsburg Railroad Company.....	\$ 1,000,000 00
Less twelve Annual Payments on account, of \$40,000 each.....	480,000 00
	520,000 00
Sterling 6 per cent. Loan issued in 1870, redeemable in 1895, Coupons payable in March and September, £800,000 at \$4.84.	\$ 3,872,000 00
Less for Sinking Fund, £455,043 16s. 0d., at \$4.84.....	2,202,412 00
	1,669,588 00
Sterling 6 per cent. Loan issued in 1872, redeemable in 1902, Coupons payable in March and September, £2,000,000, at \$4.84.....	\$ 9,680,000 00
Less for Sinking Fund, £580,162 16s. 3d., at \$4.84.....	2,807,988 00
	6,872,012 00
Sterling 6 per cent. Loan issued in 1874, redeemable in 1910, Coupons payable in May and November, £2,000,000, at \$4.84.	\$ 9,680,000 00
Less for Sinking Fund, £332,211 11s. 5d., at \$4.84.....	1,607,904 00
	8,072,096 00
Sterling 5 per cent. Loan issued in 1877, redeemable in 1927, Coupons payable in June and December. For account of the Baltimore and Ohio and Chicago Railroad Companies—£1,600,000, at \$4.84.....	\$ 7,744,000 00
Secured by Bonds Baltimore and Ohio and Chicago Railroad Companies, held by Trustees, £1,600,000, at \$4.84.....	7,744,000 00
Loan 6 per cent. issued in 1879, redeemable in 1919, Coupons payable in April and October. For account of the Parkersburg Branch Railroad Company.....	\$ 3,000,000 00
Secured by Mortgage Bonds of the Parkersburg Branch Railroad Company, held by Trustees.....	3,000,000 00
Loan 5 per cent. issued in 1885, redeemable in 1925. Coupons payable February and August. For account of the Pittsburgh and Connellsburg Railroad Company.....	\$10,000,000 00
Secured by the Second Consolidated Mortgage Bonds of the Pittsburgh and Connellsburg Railroad Company, held by Trustees.....	10,000,000 00
Loan 4½ per cent. issued in 1883, redeemable in 1933. For account of the Baltimore and Philadelphia Railroad, Coupons payable in April and October, £2,400,000, at \$4.84.	11,616,000 00
Authorized issue of Car Trust Bonds \$2,500,000. Redeemable by ten annual payments of \$250,000 each—4½ per cent. Coupons January and July. Issued to date.....	2,005,505 00
Bonds to State of Maryland, due July 1, 1888, at 6 per cent. Coupons January and July, in settlement under Act of 1878, chapter 155, section 4.....	366,000 00
Bonds of the Northwestern Virginia Railroad Company, of which the payment, principal and interest, has been assumed by the Baltimore and Ohio Railroad Company, under contract of July 18, 1864, viz: Third Mortgage Endorsed Bonds, originally \$500,000, reduced to.....	140,000 00
Loans.....	6,505,678 52
Bills Payable.....	2,263,635 59
Unclaimed Dues.....	134,571 63
Washington Branch Road.....	481,812 89
Due Sinking Funds.....	543,505 07
Pay Rolls and Vouchers for September 1887, payable in October 1887.....	1,218,803 86
	\$115,148,494 57

## B

STATEMENT OF THE EARNINGS AND WORKING EXPENSES  
*Of the BALTIMORE AND OHIO RAILROAD COMPANY, including the Winchester and Potomac, Winchester and Strasburg, the Strasburg and Harrisonburg, the Metropolitan Branch, the Washington City and Point Lookout, the Fairmont, Morgantown and Pittsburgh, and South Branch Railroads, for the Fiscal Year ended September 30th, 1887.*

Earnings of the Main Stem, including the Winchester and Potomac, Winchester and Strasburg, the Strasburg and Harrisonburg, the Metropolitan Branch, the Washington City and Point Lookout, the Fairmont, Morgantown and Pittsburgh, and South Branch Railroads..... \$11,201,348 34

## EXPENSES.

Expenses of Transportation.....	\$3,145,688 84
General Expenses.....	245,118 67
Losses by Accidents, &c.....	61,687 80
Repairs of Railway.....	734,854 02
Repairs of Locomotives.....	619,545 53
Repairs of Burden Cars .....	592,960 84
Repairs of Passenger Cars.....	328,957 92
Repairs of Stationary Machinery.....	79,304 29
Repairs and Construction of Depots.....	211,313 83
Repairs of Water Stations.....	23,698 94
Repairs of Bridges.....	90,379 63
Repairs and Renewals of Telegraph Lines.....	29,478 83
Fuel.....	411,670 80
Contingent Expenses of Machinery Department..	14,466 41
Cleaning Engines and Cars.....	156,235 88
Preparing Fuel and Filling Tenders.....	26,409 31
Pumping Water.....	29,263 51
Watching Cuts.....	38,486 28
Watching Tunnels.....	5,695 16
Watching Bridges.....	12,788 29
	6,858,004 78
	\$4,343,343 56

Working Expenses, 61.22 per cent.

Treasury Department, Baltimore and Ohio Railroad Company,  
 30th SEPTEMBER, 1887.

W. H. IJAMS, TREASURER.

**C**  
MAIN STEM STATEMENT OF PROFIT AND LOSS FOR THE FISCAL YEAR ENDED SEPT. 30, 1887.

1886	Nov. 1.	To Dividend of four per cent. upon the Capital Stock.....	\$ 591,384 00	1886.	Oct. 1.	By Balance at the credit of this account.....	\$48,047,461 16
1887.	May 17.	To Dividend of four per cent. upon the Capital Stock.....	591,384 00		Nov. 1.	By Dividend of five per cent. for the six months ended September 30th, 1886, upon 10,280 shares of Washington Branch Stock, owned by the Main Stem.....	51,400 00
	Sept. 30.	To Interest and Taxes.....	\$ 4,618,582 52	1887.	April 20.	By Dividend of five per cent. for the six months ended March 31st, 1887, upon 10,280 shares of Washington Branch Stock, owned by the Main Stem.....	51,400 00
		Less credits of interest.....	1,048,320 61			By House Rents received during the twelve months.....	11,173 82
		To Ground Rents.....	3,570,271 91			By Barings for the twelve months ended this day.....	1,201,318 34
		" Rent of Winchester and Potomac Railroad.....	34,09 06			Less Expenses for same period.....	6,858,004 78
		" Rent of Winchester and Strasburg Railroad.....	27,000 00			By Increment from Sterling Sinking Funds.....	4,343,343 56
		" Rent of Strasburg and Harrisonburg Railroad.....	5,229 00	Sept. 30.		By Increment from the Sinking Fund of the Washington City and Point Lookout Railroad.....	350,030 16
		" Rent of Washington City and Point Lookout Railroad.....	\$9,250 00			By Central Ohio Division.....	6,225 00
		" Judgment in case of Wm. A. Brydon, with interest.....	36,00 00			By Lake Erie Division.....	81,134 24
		" Uncollectible Debts, adjustment of accounts of prior years, including the adjustment of stock and bond transactions, and for equipment depreciation.....	\$5,250 00			By Sale to United States Express Company of Baltimore and Ohio Express, its equipment and franchises—Less value of Baltimore and Ohio Express equipment.....	90,013 81
		" Straitsville Division—loss operating.....	1,642,401 75				1,842,665 96
		" Balafrance carried down.....	76,210 81				\$54,884,847 71
		" Philadelphia Branch—loss operating.....	52,327 17				
		" Straitsville Division—loss operating.....	48,083,720 01				
		" Balafrance carried down.....					

Oct. 1, 1881.

-\$45,083,720 01

Treasury Department, Baltimore and Ohio Railroad Company, }  
September 30, 1887.

## D

STATEMENT OF THE ASSETS AND LIABILITIES  
of the WASHINGTON BRANCH ROAD, September 30th, 1887.

## ASSETS.

Road from Washington Junction to Washington City, with Real Estate, &c. ....	\$1,650,000 00
Amount due by the Baltimore and Ohio Railroad Company. ....	481,812 89
	<hr/> \$2,131,812 89

## LIABILITIES.

Stock ....	\$1,650,000 00
Annuity (Principal) ....	20,000 00
Profit and Loss. ....	461,812 89
	<hr/> \$2,131,812 89

Treasury Department, Baltimore and Ohio Railroad Company, }  
30th SEPTEMBER, 1887.

W. H. IJAMS, TREASURER.

## E

STATEMENT OF THE EARNINGS OF THE WASHINGTON BRANCH ROAD, AND EXPENDITURES OF THE ROAD DEPARTMENT,  
for the Fiscal Year ended September 30th, 1887.

Earnings. ....	\$380,399 97
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## EXPENDITURES OF THE ROAD DEPARTMENT.

Repairs of Railway. ....	\$62,363 46
Repairs of Depots. ....	18,492 22
Repairs of Water Stations. ....	803 78
Pumping Water. ....	5,687 58
Repairs of Bridges. ....	1,492 07
	<hr/> 88,839 11
	<hr/> \$291,560 86

Treasury Department, Baltimore and Ohio Railroad Company, }  
30th SEPTEMBER, 1887.

W. H. IJAMS, TREASURER.

Washington Branch, *Bond, Profit and Loss Account for the Fiscal Year ended September 30th, 1887.* Cr.

Treasury Department, Baltimore and Ohio Railroad Company, 1  
30th SEPTEMBER, 1887.

## G

STATEMENT OF THE EARNINGS AND WORKING EXPENSES  
*Of the PARKERSBURG BRANCH RAILROAD, for the Fiscal Year  
 ended September 30th, 1887.*

Earnings..... \$676,830 29

## EXPENSES.

Expenses of Transportation.....	\$215,336 79
Fuel.....	30,791 87
Repairs and use of Locomotives.....	53,600 91
Repairs and use of Burden Cars.....	62,096 16
Repairs and use of Passenger Cars.....	5,271 55
Repairs of Stationary Machinery.....	1,995 70
Repairs of Depots.....	6,132 56
Contingent Expenses of Machinery Department.....	196 69
Cleaning Engines and Cars.....	8,132 02
Preparing Fuel and Filling Tenders.....	823 48
Repairs of Railway.....	118,664 29
Repairs of Water Stations.....	4,749 25
Repairs of Bridges .....	24,316 29
Repairs of Telegraph.....	4,526 59
Pumping Water.....	3,465 90
General Expenses.....	22,280 01
Taxes.....	24,564 61
Losses by Accidents, &c.....	929 16
	587,872 93
	\$88,957 36

Working Expenses 86.85 per cent.

Treasury Department, Baltimore and Ohio Railroad Company, }  
 30th SEPTEMBER, 1887. }

W. H. IJAMS, TREASURER.

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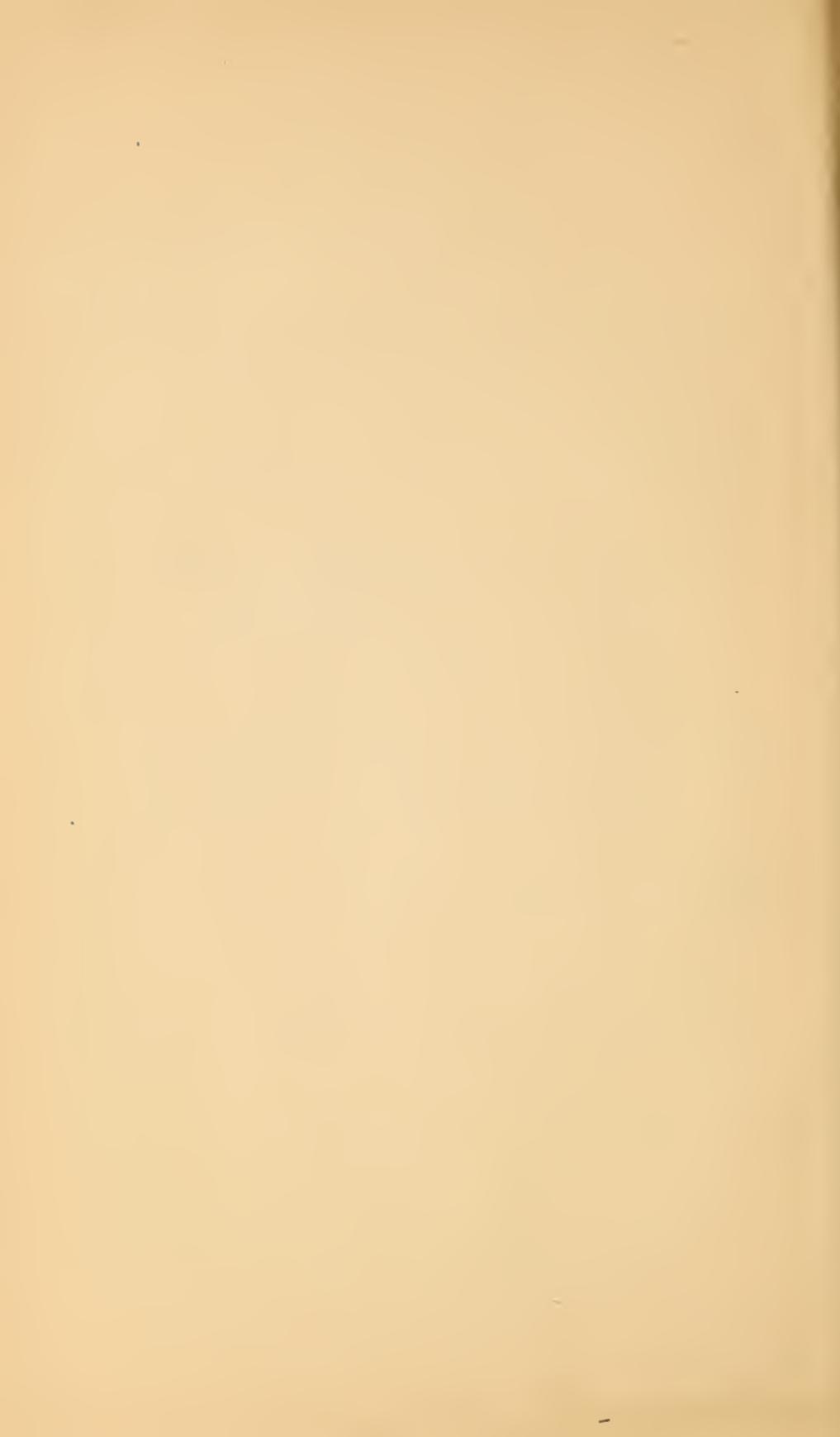
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## Report of the Manager

OF THE

Main Line and Branches, and of the Pittsburgh  
and Philadelphia Divisions.

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## MANAGER'S OFFICE.

BALTIMORE & OHIO RAILROAD COMPANY, MAIN LINE, PITTSBURGH  
AND PHILADELPHIA DIVISIONS.

*Baltimore, Md., October 1st, 1887.*

W. F. BURNS, Esq.,

*President pro tem.*

SIR:—I submit herewith the following report, covering the operations of lines east of the Ohio River, for the fiscal year ended September 30th, 1887:

Main Line Division. aggregate of tracks, including sidings, 1,357.5 mi'es.					
Philadelphia	"	"	"	"	225.7 "
Pittsburgh	"	"	"	"	452.4 "
—————					
2,035.6 mi'es					

*Comparison of the Earnings and Expenses of the Main Line, Philadelphia and Pittsburgh Divisions, for the Fiscal Years 1885-6 and 1886-7.*

	1885-6.	1885-6.	1885-6.
	Earnings.	Expenses.	Net Earnings.
Main Line Division .....	\$10,834,977 39	\$ 6,412,758 57	\$ 4,422,218 82
Philadelphia " .....	114,767 30	99,521 02	15,246 28
Pittsburgh " .....	2,876,343 97	2,020,473 07	855,870 90
	—————	—————	—————
	\$13,826,088 66	\$8,532,752 66	\$5,293,336 00
1886-7.			
	1886-7.	1886-7.	1886-7.
	Earnings.	Expenses.	Net Earnings.
Main Line Division .....	\$12,258,578 60	\$ 7,534,716 82	\$ 4,723,861 78
Philadelphia " .....	718,740 76	794,961 57	Deficit. 76,220 81
Pittsburgh " .....	3,064,683 61	2,079,350 13	985,333 48
	—————	—————	—————
	\$16,042,002 97	\$10,409,028 52	\$5,632,974 45

*The following shows the Revenues from PASSENGERS AND TONNAGE on Main Line, Philadelphia and Pittsburgh Divisions, for Fiscal Year ended September 30th, 1887.*

	Passenger Revenue.	Tonnage Revenue.	Total Revenue.
Main Line Division.....	\$2,643 227 56	\$9,615 351 04	\$12,258,578 60
Philadelphia " .....	190,572 14	528,168 62	718,740 76
Pittsburgh " .....	741,795 60	2,322,888 01	3,064,683 61
	\$3,575,595 30	\$12,466,407 67	\$16,042,002 97

*The Expenses for the Fiscal Year ended September 30th, 1887, were as follows:*

	Conducting Transporta'n.	Machinery Department.	Maintenance of Way.	Other Departments.
Main Line Division.	\$3,373,650 33	\$2,391,198 11	\$1,415,288 13	\$354,580 25
Philadelphia " .....	333,027 18	311,425 36	105,419 62	45,089 41
Pittsburgh " .....	828,035 41	693,401 59	434,868 67	123,044 46
	\$4,534,712 92	\$3,396,025 06	\$1,955,576 42	\$522,714 12

## STATEMENT OF THE REVENUES AND EXPENSES of the following Divisions for the Fiscal Year ended September 30th, 1887.

	Passenger Revenue.	Tonnage Revenue.	Total Revenue.	Expenses.	Net.
Main Line, including the Winchester and Potowmac, Winchester and Strasburg, the Strasburg and Harrisonburg, the Metropolitan Branch, the Washington City and Point Lookout, the South Branch and the Fairmont, Morgan- town and Pittsburgh Railroads.....	\$2,165,527 83	\$9,035,820 51	\$11,201,348 34	\$6,858,004 78	\$4,343,343 56
Philadelphia Division.....	190,572 14	528,168 62	718,740 76	794,961 57	76,220 81
Washington Branch.....	265,368 50	115,031 47	380,399 97	88,839 11	291,560 86
Parkersburg Branch.....	212,331 23	464,499 06	676,830 29	587,872 93	88,957 36
Pittsburgh Division.....	535,963 46	2,003,110 38	2,599,073 84	1,594,810 23	1,004,263 61
Wheeling & Pittsburgh Division.....	145,832 14	319,777 63	465,609 77	484,539 90	18,930 13
	<u>\$3,575,595 30</u>	<u>\$12,465,407 67</u>	<u>\$16,042,002 97</u>	<u>\$10,409,028 52</u>	<u>\$5,632,974 45</u>

Total number of tons of THROUGH MERCHANDISE, East and West, for the fiscal year ended 30th September, 1887.....	3,537,207 tons.
The same for fiscal year ended 30th September, 1886.....	2,731,119 "
Increase.....	806,088 tons.

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COMPARATIVE STATEMENT OF GRAIN, ETC., received at Baltimore during the Fiscal Years ended 30th September, 1886 and 1887.

	1886.	1887.
Corn, bushels.....	9,474,275	5,223,770
Wheat, " .....	3,437,159	6,600,027
Barley, " .....	67,450	238,245
Ryc, " .....	55,376	66,562
Oats, " .....	684,168	848,431
 Total, bushels.....	13,718,428	12,977,035
 Decrease.....		741,393

Flour brought to Baltimore—

In 1886.....	752,150 bbls.
In 1887.....	1,274,542 "
Increase.....	522,392 bbls.

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Live Stock brought to Baltimore—

In 1886.....	70,220 tons.
In 1887.....	43,220 "
Decrease.....	27,000 tons

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Lumber brought to Baltimore—

In 1886 .....	92,831 tons.
In 1887.....	76,103 "
Decrease.....	16,728 tons.

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## COAL TRADE.

Coal and Coke transported on the Main Line and Branches, in- clusive of the Company's supply.....	4,209,477 tons.
Deduct delivered at various points for the Company's supply..	553,114 "
Leaving amount transported for the public.....	3,656,363 tons

Date.	Delivered at Locust Point.	Delivered at other places in Baltimore.	Delivered at Way Stations and Points West.	Totals.
In 1886.....	2,163,155 tons.	74,293 tons.	946,639 tons.	3,184,087 tons.
In 1887.....	2,441,857 "	126,201 "	1,088,305 "	3,656,363 "
Increase.....	278,702 tons.	51,908 tons.	141,666 tons.	472,276 tons.

## COAL AND COKE.

Total Coal and Coke transported on Main Line and Branches..	4,209,477 tons.
Philadelphia Division.....	363,045 "
Pittsburgh " .....	2,137,227 "
Total Coal and Coke transported.....	6,709,749 tons.

## MAIN LINE DIVISION.

A. H. JOHNSON, ENGINEER—MAINTENANCE OF WAY.

EASTERN DIVISION—THOS. FITZGERALD, SUPERINTENDENT,  
Comprising the Main Line and Branches east of Keyser.WESTERN DIVISION—J. F. LEGGE, SUPERINTENDENT,  
Comprising the Main Line and Branches west of and including Keyser.

## HARPER'S FERRY AND VALLEY DIVISION.

THOS. C. PRINCE, SUPERINTENDENT,  
Comprising line from Harper's Ferry to Harrisonburg.

## MAIN LINE—Baltimore to Wheeling.

Main track.....	379	miles.
Second “ .....	285	“
Third “ .....	24	“
Fourth “ .....	8½	“
Sidings.....	<u>159½</u>	“
		855½ miles.

## LOCUST POINT BRANCH—Mount Clare to Locust Point.

Main track.....	5	miles.
Second “ .....	5	“
	<u>10</u>	“

## CAMDEN CUT-OFF—Carroll to Mt. Clare Junction.

Main track.....	1½	miles.
Second “ .....	1½	“
	<u>3</u>	“

## CURTIS' BAY BRANCH—Camden Junction to Curtis' Bay.

Main track, including Sea Wall Branch.....	6½	miles.
Sidings.....	½	“
	<u>7</u>	“

## WASHINGTON BRANCH—Relay Station to Washington.

Main track.....	31	miles.
Second “ .....	31	“
Sidings.....	9½	“
	<u>71½</u>	“
Carried forward.....	<u>.947½</u>	miles.

Brought forward..... 947½ miles.

WASHINGTON CITY & PT. LOOKOUT BRANCH—Alexandria Junc. to Shepherd.

Main track.....	12½ miles.
Sidings .....	1½ " "
	<hr/> 14 miles.

METROPOLITAN BRANCH—Washington to Washington Junction.

Main track.....	42 $\frac{1}{2}$ miles.
Second " .....	12 $\frac{1}{2}$ "
Sidings.....	9 $\frac{1}{2}$ "

## FREDERICK BRANCH—Frederick Junction to Frederick.

Main track.....	3½ miles.
Sidings.....	2 " "

## H. F. & VALLEY DIVISION—Harper's Ferry to Harrisonburg.

Main track .....	102 miles.
Sidings.....	$10\frac{1}{2}$ "
	<hr/> 112 $\frac{1}{2}$

WASHINGTON COUNTY BRANCH—Weverton to Hagerstown.

Main track.....	24½ miles.
Sidings.....	3½ "

### SOUTH BRANCH R. R.—Green Spring to Romney.

Main track.....	16 miles.
Sidings.....	$\frac{3}{4}$ "

PARKERSBURG BRANCH—Grafton to Parkersburg.

Main track .....	104	miles.
Sidings .....	34	"
	<hr/>	
		138

F. M. & P. R. R.—Fairmont to Morgantown.

Main track.....	25½ miles.
Sidings.....	2½ "
	<hr/> 27½

## Ohio River Bridges—Benwood and Parkersburg.

3 " \_\_\_\_\_  
1 3574 miles

## MAIN LINE.

(Including Locust Point, Curtis' Bay and Frederiek Branches, South Branch R. R. and Camden Cut-off.)

## MAINTENANCE AND OPERATION.

*Railway.*—6,085 tons of new steel rail and 280,479 cross-ties placed in track, including those laid in new sidings, and 40½ miles of track reballasted with stone.

*Bridges.*—Reese's trestle repaired with new stringers and sills. Bridges Nos. 2, 28, 29, 33, 44, 52½, 74, 77 and 78 were renewed with new ties, stays and guard rails. Highway bridge at Watson's Cut was repaired. 504 cubic yards of masonry were rebuilt at abutments of bridges Nos. 29, 74 and 77. Rebuilt Washington street and Fayette street bridges at Cumberland, with 48 cubic yards of first-class masonry; these bridges are now first-class iron structures. 216 cubic yards of first-class masonry were rebuilt in abutment of culvert west of Cumberland. Renewed track stringers on seven open culverts, between Albionton and Ellicott City, with ties, wall plates and wrought iron beams. New I beams, ties, stays and wall plates were put on two culverts east of Mt. Airy. 128 cubic yards of first-class masonry were rebuilt in culvert at Quarantine. Bridges Nos. 4, 40, 41 and 77 were painted. Ties were renewed in open culverts east of Thornton. A culvert containing 128 cubic yards of first-class masonry was built at Brittain. Built retaining wall containing 80 cubic yards of first-class masonry, erected and painted new iron bridge, three spans, total length 600 feet, at bridge No. 112; built abutments containing 463 cubic yards of first-class masoury, at bridge No. 116; built 150 cubic yards of first-class masonry, and put in new iron plate girders, at bridge No. 130. Bridges Nos. 134, 135, 143 and 144 were painted. Four trestles, two 14 feet high, and two 8 feet high, and 80 feet long, and a culvert containing 26 cubic yards of first-class masonry, were built at Benwood. 1,516 cubic yards of masonry were rebuilt in

abutments of bridges Nos. 100, 133, 136, 140, and 38th and 45th street bridges, at Wheeling. Bridges Nos. 92, 104, 111, 113, 114, 115, 117, 118, 119, 120, 121, 122, 123, 124, 127, 128, 129, 131, 132, 137, 139, 141, 142, 143, 144, 145, 148, 149, 153, 154, highway bridges at Gilboy's Cut, Moundsville and McMechen's Cut, and Ohio River Bridge at Benwood, were repaired, adjusted and renewed. Erected six ribs of truss, combination of wood and iron, one truss between twin spans, one rib inside of each span on either side, length 314 feet, two spans, at bridge No. 77. Renewed tracks with new ties and stays on four culverts east of Hollofields, seven west of Cumberland, and one west of No. 74 bridge..

*Depots and Buildings.*—At Locust Point, wharves of elevators "A," "B," and "C" were repaired. Piers Nos. 6 and 7 repaired; sides and roof covered with metal and painted. Piers Nos. 8 and 9 repaired; sides and roof painted. Piers Nos. 23 and 24 repaired; bulkhead at Piers Nos. 31 and 32 repaired by driving 180 oak piles and capping with 12x12 timber. Barge slip repaired by taking out rotten piles and driving 35 new ones, capped with 12x12 timber. The short leg is 45 feet long and the middle leg 90 feet. The bulkhead at old warehouse (37 feet long) was repaired by putting in new 12x12 timber. Barges A, B, C, D, E and F were thoroughly repaired. A new hose house, 11x17 feet, with metal sides and roof, and also a scale house, 9x22 feet, with metal sides and roof, were built.

At Spear's Wharf, warehouses were strengthened by putting in girders, caps and posts, from ground to top floor. A hydraulic elevator was put in to facilitate the handling of freight. At Centre Station, pier was repaired by cutting off piles to solid wood and building up with 12x12 timber. At Riverside, renewed five sections of flooring in the round house, and at Bailey's, a new fence was built at round house, 8 feet high, 180 feet long.

At Camden Station, the passenger shed between Barre and Lee streets was taken down, and platforms removed; roof of shed between

Camden and Barre streets was trussed, inner posts removed, and general changes made to accommodate increased business. A new freight office was built at the corner of Barre and Eutaw streets.

At Russia, an addition, 16x30 feet, 10 feet 2 inches high, of brick covered with iron, was built to the oil house, and the engine houses were repaired; at Camden Junction, coal chutes were extensively repaired by putting in new sills, caps and posts, and one new iron chute was put in; at Union Bridge, built new waiting shed, 10x20 feet, with metal roof; at Plane No. 4, coal chutes were repaired by putting in new stringers, ties, tie-stays, caps and sills, and at Sir John's Run, renewed floor in warehouse, 14x17 feet.

At Martinsburg, dispatcher's office, 12x16 feet, 8 feet high, with metal roof, was built. Built fence 100 feet long, 6 feet high.

At Cumberland, a shed 75x110 feet was built at the Rolling Mill. 850 lineal feet of fence, 8 feet high, was rebuilt. Four new stockpens, each 40 feet square, and an oil house, 14x18 feet, 12 feet high, with metal roof, were built.

At 21st Section, 480 lineal feet of fence was rebuilt; at Keyser, coal chutes, round house, freight and passenger depots were repaired; at Piedmont, freight and passenger depots were repaired and painted; at Swanton, a tool house, 10x12 feet, 9 feet high, with metal roof, was built, and at Deer Park and Oakland Hotels, all necessary general repairs were kept up.

At Grafton, frame blacksmith shop, 20x71 feet, and coal house, 8x14 feet, 9 feet high, were built, and at Benwood, a new oil and car repairer's house, 12x14 feet, 12 feet high, was built.

Between Baltimore and Wheeling, 42,396 square feet of wooden platforms were renewed, and 21,396 square feet of cinder platforms built.

*Water Stations.*—At Riverside, a new penstock was put in; at Grey's and Lee's Water Stations, penstocks were raised and frames

repaired; at Gaither's, a new pump house, 12x16 feet, 14 feet high, was built, new pump and boiler put in, and pipes and penstocks repaired; at Plane No. 4, new floor was put in pump house, 16x18 feet, and penstock at engine house repaired; at Bartholow's, new penstock frame was put up, and pipes and penstocks repaired, and at Sandy Hook, new boiler was put in and penstock repaired.

At Martinsburg, a new water tub, 30 feet diameter, 12 feet high, with stone foundation and metal roof, was built, and tub, 20 feet diameter, 11 feet 8 inches high, was rebuilt.

At Cherry Run, new boiler was put in, and a new boiler house, 10x16 feet, 10 feet high, with metal roof, was built: penstock pits at Sleepy Creek, Sir John's Run and Little Cacapon were rebuilt, and a new boiler put in at Sir John's Run; at Green Spring, a new boiler house was built and a new boiler put in; at Patterson's Creek, two new pumps were put in; at Cumberland, two penstock pits were built; at Sleepy Creek, new boiler and steam-chest for pump were put in; at Newburg, 370 feet of well were driven; at Mannington, new pump was put in and engine repaired; at Bellton, a temporary water station, tub 12x20 feet, was erected, and 135 feet of east iron pipe laid, and at Wheeling, tub 16x22 feet was renewed, and 285 feet of east iron pipe laid. General repairs were made to pumps, pipes and penstocks at water stations Nos. 34, 35 36, 39, 40, 41, 42, 43, 44, 45, 46, 47, 50, 51, 52, 53 and 54.

#### CONSTRUCTION.

12½ miles of second track were laid on the Metropolitan Branch, and 7 miles of third track and 8 miles of new sidings on the Main Line. At Alberton, a retaining wall containing 108 cubie yards of first-class masonry was built. At Tray Run, 1,040 cubie yards of first-class masonry, false work for new bridge, and one span, 124 feet 3 inches long, of new bridge, were erected. 67 lineal feet of single track trestle were built at Scott and Bayard streets, Baltimore; at Hollofields, 488 cubie yards of masonry were built in extending cul-

verts; 243 cubic yards of masonry were built in extending culvert between Plane No. 4 and Bartholow's; 586 cubic yards of masonry were built in extending twelve culverts between Knoxville and Berlin; at Sir John's Run, 148 cubic yards of masonry were built in extending culverts; at No. 12 Water Station, 198 cubic yards of masonry were built in extending culverts, and at Green Spring, 23 cubic yards of masonry were built in extending culverts.

At Locust Point, a new freight shed annex to Piers Nos. 31 and 32, two stories, 25 feet high, 440 feet long by 108 feet wide, sides and roof covered with metal, with a platform six feet wide extending around same, was built. Two new barges, "H" and "I," each 195 feet long, 33 feet wide and 6 feet deep, with a capacity of ten cars each, were built. A new emigrant building, 60x165 feet, 27 feet high, two stories, of brick and iron, was built.

At Rockville, a new brick freight warehouse, 21x40 feet, 14 feet high, covered with slate, and 688 feet of new platform, were built; at Boyd's, a new brick depot building, 22x59 feet, and 180 feet of platform, were built.

At Deer Park, an addition, 16½x29 feet, 16 feet high, with stone foundation containing 21 cubic yards of masonry, was built to cottage No. 3. A new stable, 29x32½ feet, 16 feet high, with stone foundation containing 11 cubic yards of masonry, was built. A new reservoir, 20 feet deep, 14 feet diameter, was built. 11,000 lineal feet of 6-inch cast iron pipe, for the purpose of conveying water from Boiling Spring to the pump house, was laid.

At Oakland, new servants' quarters, 24x84 feet, two stories high, with stone foundation containing 24 cubic yards of masonry, were built.

#### CONSTRUCTION WATER STATIONS.

At Bay Ridge, a new tub, 11x13 feet, with trestles 10 feet high, was erected.

## WASHINGTON BRANCH.

## MAINTENANCE AND OPERATION.

*Railway.*—123 tons of new steel rail and 22,258 cross-ties were used. 1½ miles of track were reballasted with stone.

*Bridges.*—Culverts containing 180 cubic yards of first-class masonry were built at Montello. Walls containing 15 cubic yards of masonry were built under highway bridge at Mills'. Highway bridges at Annapolis Junction, Savage, Rives', Muirkirk, Mills' and Washington were painted.

*Depots and Buildings.*—At Dorsey's, a new platform, and waiting shed, 9x50 feet, 9 feet high, were built; at Wayman's Grove, 1,020 feet of platform were repaired; platforms at Jessup's, Bridewell, Annapolis Junction, Laurel and College were repaired; at Laurel, a new waiting shed, 9x25 feet, with metal roof, was built; at Muirkirk, a new freight house, 9x16 feet, 10 feet high, with metal roof, was built, and at Ivy City, 700 feet of platform were rebuilt.

At Washington, a new freight shed, 53x95 feet, 14 feet high, sides and roof covered with metal, 309 feet of new platform and 100 feet of fence, 6 feet high, were built. The depot was altered, and 800 feet of platform changed, to accommodate the increased business.

## WASHINGTON CITY AND POINT LOOKOUT BRANCH.

3,113 cross-ties were used in renewals, and all bridges kept in repair.

## METROPOLITAN BRANCH.

## MAINTENANCE AND OPERATION.

*Railway.*—60 tons of new steel rail and 19,292 cross-ties were used, and 2½ miles of track were reballasted with stone.

*Bridges.*—Highway bridges Nos. 1, 2, 3 and 4 were rebuilt and painted, and bridges Nos. 8 and 11 repaired.

*Depots and Buildings.*—At Garrett Park, 128 feet of new platform laid; at Derwood, 125 feet of new platform laid; at Washington Grove, 900 feet of platform renewed; at Gaithersburg, 360 feet of new platform and a stockpen, 32x32 feet, built, and at Germantown, 200 feet of platform renewed, and new cattle chutes built. 508 feet of platform were renewed at Terra Cotta, Silver Spring and Rockville, and 1,157 feet of new platform built at Derwood, Buck Lodge, Tuscarora, Brooks', Stotts', Lamond's and Dooley's.

At Takoma a new frame station house, 31 feet 6 inches by 17 feet, a new waiting shed, 21x25 feet, 11 feet high, and 225 feet of new platform, were built.

## HARPER'S FERRY AND VALLEY DIVISION.

### MAINTENANCE AND OPERATION.

*Railway.*— $2\frac{3}{4}$  miles of steel rail were laid and 21,761 cross-ties used between Harper's Ferry and Strasburg, and  $5\frac{3}{4}$  miles of steel rail and 19,738 cross-ties between Strasburg and Harrisonburg.

*Bridges.*—Culvert north of Middletown, containing 24 cubic yards of first-class masonry, was rebuilt. Bridge No. 45 was rebuilt and new track stringers, ties and guard rails put on. Bridge No. 41 was rebuilt and new caps, sills, stringers and ties put on. Track on bridge No. 44 was renewed and new ties and tie stays put on. Track on culvert at Linville was renewed and wrought iron beams, ties and wall plates put on. 415 cubic yards of masonry were rebuilt in culverts at Hawkinstown, Broadway, Linville, Cowan's, 75-Mile Post, Mt. Jackson and Maurertown. Tracks on bridges Nos. 70 and 87 were renewed, and plates, ties and tie-stays put on. Culverts between Mt. Jackson and Timberville were renewed with wrought iron I beams.

*Depots and Buildings.*—At Millville, a new frame depot building, 20x30 feet, 12 feet high, and 690 feet of new platform were built; at Stephens City, 1,440 feet of new platform were built; at Capon Road, a new waiting shed, 11x36 feet, with metal roof, was built; at Hawkinstown, a new waiting shed, 8x12 feet, with metal roof, was built, and at New Market, a stockpen was rebuilt. 117 cattle guards were built during the year.

*Water Stations.*—At No. 4 Water Station, a new boiler was put in, and also one at No. 5 Water Station. At Edinburg, the pump house was repaired.

#### CONSTRUCTION AND IMPROVEMENT.

28 miles of wire fence were built between Harper's Ferry and Harrisonburg.

### WASHINGTON COUNTY BRANCH.

#### MAINTENANCE AND OPERATION.

*Railway.*—400 tons of steel rail and 5,420 cross ties were used.

*Bridges.*—Track on bridge No. 14 was renewed with new ties, and 283 lineal feet of trestling, at bridge No. 31, was renewed.

*Depots and Buildings.*—At Hagerstown, 1,710 square feet of passenger platform were rebuilt, and floors in cattle chutes renewed.

### PARKERSBURG BRANCH.

#### MAINTENANCE AND OPERATION.

*Railway.*—208 tons of new steel rail and 46,360 cross ties were used. 4 miles of track were reballasted with stone.

*Bridges.*—Bridge No. 4 was trestled and 50 cubic yards of first-class masonry rebuilt in abutment. 61 cubic yards of first-class

masonry were rebuilt in abutments at bridge No. 5. 55 cubic yards of first-class masonry were rebuilt in abutments at bridge No. 27. Highway bridge at mile post No. 2 was renewed. 674 cubic yards of first-class masonry was built in culvert west of No. 8 tunnel. 63 cubic yards of first-class masonry was rebuilt in culvert at Ellenboro. Ties, beams and guard timbers were renewed on bridges Nos. 2, 6, 8, 10 11, 15, 21, 23, 25, 26, 32 and 42. Bridges Nos. 1, 34, 37, 38, 39, 40, 41 and 45 were adjusted and repaired, and No. 36 trestled, masonry changed, and new iron bridge erected.

*Depots and Buildings.*—At Cairo, a new freight and passenger depot, 18x58 feet, 13 feet high, with foundation containing 90 cubic yards of first-class masonry, and new platforms, 241 feet long were built. 5,260 square feet of platform were renewed at Salem, Pennsboro, Ellenboro and Petroleum.

*Water Stations.*—At Flemington, tub and tubstand were renewed, new steam pump put in, and boiler repaired; at Clarksburg, a new steam pump was put in; at Cherry Camp, new frost proof tanks, 16x20 feet, were built, and pump house rebuilt; at Central, 358 feet of well were driven, new pump put in, and pipes and boiler repaired, and pumps, pipes and penstocks at Long Run, Toll Gate, Petroleum, Kanawha and Belpre were repaired.

## FAIRMONT, MORGANTOWN AND PITTSBURGH RAILROAD.

### MAINTENANCE AND OPERATION.

*Railway.*—2,432 cross-ties were used, and 1 mile of track ballasted.

*Bridges.*—16 cubic yards of first-class masonry were used in repairing No. 1 culvert, and bridges Nos. 1, 2, 3, 4, 5, 6 and 7, and under-grade bridge at Little Falls, were painted.

## PHILADELPHIA DIVISION.

J. VAN. SMITH, SUPERINTENDENT.

Comprising the

## PHILADELPHIA BRANCH, from Canton to State Line.

Main track.....	52.6 miles.
Second track.....	27.0 "
Sidings.....	9.2 "
	— 88.8 miles.

BALTIMORE AND PHILADELPHIA R. R., from State Line to P. & R Junction,  
(including tracks in Wilmington).

Main track.....	40.0 miles.
To 3rd St. dock.....	2.3 "
Second track.....	35.0 "
Sidings.....	10.1 "
	— 87.4 miles.

## LANDENBERG BRANCH, from West Junction to Landenberg.

Main track.....	14.7 miles.
Sidings.....	2.4 "
	— 17.1 "

## SCHUYLKILL RIVER EAST SIDE RAILROAD.

Main track .....	10.3 miles.
Second track.....	10.3 "
Fourth track.....	2.3 "
Sidings.....	7.0 "
	— 29.9 "

## CRUM CREEK BRANCH.

Main track.....	2.4 miles.
Siding.....	.1 "
	— 2.5 "
	— 225.7 miles.

## MAINTENANCE AND CONSTRUCTION.

*Railway.*—3,868 tons of 67-lb., and 1,229 tons of 64-lb. steel rails, were used during the year. 7.3 miles of main track, and 33.1 miles of second track were laid, 13 miles of new track ballasted with stone, 11 miles with gravel and 8 miles with cinder and slag ballast. 24,000 yards of stone, 8,000 yards slag and 13,000 yards gravel ballast were used in completing the ballasting of the track. 81,578 cross-ties were used during the year, including those used in main track, second track and new sidings. 16.6 miles of new sidings were laid during the year, and ballasted with cinder or gravel.

*Bridges and Trestles.*—All the trestles between West Junction and Mt. Cuba on the Landenberg Branch were renewed, and work is now progressing on those between Mt. Cuba and Landenberg. One abutment of bridge 45B, which was washed out, was rebuilt, and extensive repairs made to arch culvert 41C, over Stony Run. Box culvert near Foy's Hill rebuilt; retaining walls built on approach to overhead bridge at Collingdale, and on south side of track at Mt. Moriah. Coal trestles were erected at Aberdeen, Singerly, Chester, Ridley, Oak Lane and Darby. All bridges between Canton and Chestnut street, Philadelphia, have been lately inspected, and are in first-class condition.

*Depots and Buildings.*—Passenger stations were completed at Newark, Wilmington and Chester, and passenger stations erected at Bradshaw, Joppa, Stepney, Frenetown, Leslie, Childs, Kiamensi, Carreroft, Carpenter, Village Green, Ridley, Folsom, Holmes, Llanwellyn, Collingdale, Darby and 60th street, Philadelphia, and waiting sheds at Belvidere, Stanton, Concord, Silverside, Ogden, Boothwyn, Upland, Leiperville and 70th street, Philadelphia. Passenger depot at 24th and Chestnut streets, Philadelphia, is now being erected. Freight buildings were erected at Cowenton, Bradshaw, Joppa, Newark, Kiamensi, Piers 63 and 12, Philadelphia.

*Improvements.*—The entire system of tracks in Canton yard and connecting with the slip were remodeled so as to facilitate the handling of business at that point. 15-ton cranes for handling heavy freight were erected at Wilmington, Chester, and Race street, and Dickinson street, Philadelphia. Turn-tables were put in at Singerly, Chester, and Locust street, Philadelphia. Mile posts, whistling posts and warning signs at road crossings were erected. Water stations were erected at Baldwin and Newark. Stockpens were erected at Canton, Aberdeen, Leslie, Wilmington, Felton, Holmes and Philadelphia.

Suburban trains have been running on this division between Philadelphia, Wilmington and Singerly since May last, and the business has been gradually increasing, and promises in the near future to form an important part of the revenue. The freight business is gradually increasing, and promises well for the future.

## PITTSBURGH DIVISION.

J. V. PATTON, SUPERINTENDENT.

Comprising the

PITTSBURGH DIVISION, from Cumberland to Pittsburgh.

Main track.....	146.7 miles.
Cumberland to Mt. Savage Junction.....	3.5 "
Second track.....	58.9 "
Sidings.....	43.1 "
	252.2 miles.

FAYETTE CO. BRANCH, from Connellsville to Uniontown.

Main track.....	12.9 miles.
Sidings.....	4.1 "
	17.0 "

MT. PLEASANT BRANCH, from Broadford to Mt. Pleasant.

Main track.....	9.7 miles.
Sidings.....	2.5 "
	12.2 "

SALISBURY BRANCH, from Salisbury Junction to West Salisbury.

Main track .....	8.9 miles.
Sidings.....	8.4 "
	17.3 "

BERLIN BRANCH, from Garrett to Berlin.

Main track.....	8.0 miles.
Sidings.....	.8 "
	8.8 "

SOMERSET &amp; CAMBRIA BRANCH, from Rockwood to Johnstown.

Main track.....	45.1 miles.
Sidings.....	5.7 "
	50.8 "

\* STATE LINE R. R.

Main track.....	2.4 miles.
Sidings.....	1.7 "
	4.1 "

Carried forward. .... 362.4 miles.

Brought forward..... 362.4 miles.

O. & B. S. LINE, (East Div.) from O. & B. S. L. Jn. to Morrell and Trotters.

Main track.....	6.9 miles.
Sidings.....	1.3 "
	—
	8.2 miles.

O. & B. S. LINE, (West Div.) from Zediker to Vance.

Main track.....	3.9 miles.
Sidings.....	2.8 "
	—
	6 7 "

B. & O. SHORT LINE, from Glenwood to Zediker.

Main track.....	29.7 miles.
Sidings.....	7.2 "
	—
	36.9 "

W. P. & B. R. R., from Washington to Wheeling.

Main track.....	32.2 miles.
Sidings.....	6.0 "
	—
	38.2 "
	—
	452.4 "

## PITTSBURGH DIVISION.

### MAINTENANCE AND OPERATION.

*Railway.*—744 tons of steel and 437 tons of iron rail were used during the year. 27 miles of track were reballasted—24 with stone and 3 with slag. 95,353 cross-ties were laid, including the number laid in new sidings. 84 feet of trestle, 8 feet high, at Cooper and Burkholder's coal yard, at McKeesport, were rebuilt, the trestle at Morehead's Mills, at Soho, repaired with a new chord. the trestle at Penn Tube Works repaired with new caps, the coal spur at Hazelwood repaired, and the trestle at Sand Patch turn-table repaired with 3 new bents, chord and bumper. All the switch targets, signal lamps, crossing, mile and signal posts were repainted. The safety gates at McKeesport were taken down, cleaned and re-set, the lawn fences repaired and a foot walk laid.

*Bridges.*—Bridge No. 1 was re-built with wood, new floor beams were placed in the west span of bridge No. 8; Nos. 15, 18, 25 and 29 were strengthened with wooden chord and truss rods; No. 24 with wooden chord, truss rods, floor beams, wall plates and elevation ties. Nos. 20, 34, 49 and 70 were extensively repaired. Nos. 40, 42, 56 and 61 were repaired with ties and guard rails. New ties were placed on Nos. 41 and 51. No. 67 was repaired with 6 double bents, new end sills, ties and guard rails on the east-bound track. No. 68 repaired with 6 double bents. No. 71 with new floor beams, elevation ties, and guard rails on the west-bound track. The trestle over Turtle Creek was rebuilt on account of being washed out by a heavy freshet. The over-head bridge, 16x96 feet, at Becks Cut, and 22 small culverts, were rebuilt during the year. Bridges Nos. 46, 55, 56 and 70 were painted.

*Depots and Buildings.*—The train order signals and posts at Mt. Savage Junc., east and west end of Sand Patch Tunnel, Garrett, Confluence, Layton and West Newton, were rebuilt and painted. 30 feet of sewer pipe were laid at Hazelwood Depot, and the platforms at Fair Hope, Buena Vista, Robbins, Connellsville, McKeesport, Port Perry, Braddock, Hazelwood and Pittsburgh were extensively repaired. New ventilators were placed in the station at Scott Haven; a dwelling house at McKeesport, 16x35 feet, was repaired with a new roof and a porch floor laid. The dwellings at Sand Patch and 61 mile post have had one room, 12x14 feet, lined with flooring. 11,781 square feet of passenger platforms were rebuilt at Bowman, Welds, Keystone Junc., Casselman, Markleton, Pinkerton, Guffey's, Braddock, Rankin, Laughlin, Soho, Birmingham and Pittsburgh. The depots at Hyndman, Rockwood, Shaner, Markleton, Confluence and Ohio Pyle, and the dwellings at McKeesport, Copper Works, Glenwood, Connellsville, Ohio Pyle and Shaner were re-painted. The Hamilton house at West Newton was extensively repaired, papered and painted. New floors and lining were put in the sand house at Port Perry. The stock-pens at McKeesport, Braddock and Elba were repaired.

Shelving was placed in a room 12x40 feet for the general freight department in the building Cor. 5th Ave. and Wood St., Pittsburgh, and the 2d floor of the building raised and a new floor laid. The ice houses at Glenwood and Pittsburgh were repaired and a new tar paper roof put on the round house at Pittsburgh. The tool house at Southampton, coal tipple at Hyndman, and the round house at West Newton were repaired. The crossings at Glenwood, and at Ross St., Pittsburgh, were rebuilt. The floor of 10th Street crossing was repaired, and new centre washing and decking put on the turn-table at Sand Patch. New truss rods were put in the turn-table at West Newton and a centre pin in the one at Pittsburgh. The crane at Pittsburgh freight depot, used for hoisting heavy castings, was repaired. At Glenwood Shops, 10 double doors were repaired, machine shop and round house floors renewed, one large door taken off and a raising sash put in place. Put doors in position, placed 6 large enpboards, pipe racks and shelving for brasses in the store rooms, decked the transfer tables, enlarged the pits in the round house and whitewashed the shops on the inside. The Supervisors' office and blacksmith shop at Rockwood, offices at Scott Haven, tool house at Brook Tunnel, 21 watch boxes and the station signs at Cook's Mills, Birmingham, Schweibinz, Braddock, Griffin, Laughlin and Casselman were repainted.

*Water Stations.*—The tank at Draketown, of 30,000 gallons capacity, was rebuilt, 74 cubic yards of masonry and 200 feet of 4-inch water pipe laid. At Confluence, a tank of similar capacity was rebuilt and 150 feet of sewer pipe laid. The tanks at Layton, Griffin and Robbins were repaired, and the one at Pittsburgh raised and stone pedestals put under the posts. The tanks at Jim Run and Indian Creek were painted.

#### CONSTRUCTION AND IMPROVEMENT.

4 1-10 miles of new siding, 14 new mail cranes, 30 new clearance posts, 7 crossing signs, 3 bumping blocks, 25 street crossings, 227

box drains, 2,262 lineal feet of fence, 6 tool boxes, 2 yard limit signs, 2 stop boards, 18 portable platform steps, 21 watch boxes, a new shed 12x14 feet placed over the hoisting crane at Pittsburgh, and an addition 12x50 feet to the Express office at Ross street, Pittsburgh, were built. A new kitchen 12x12 feet at the Company's house at Bear Run, a new tool house 14x16 feet at Rockwood, and a new tool room 8x18 feet at Glenwood shops were erected. New coal houses 8x12 feet were placed at the dwellings at Sand Patch, Meyersdale and Rockwood, and at Christy Park and Rankin Stations. New waiting sheds 10x12 feet were erected at Soho and Linden, and a new station house 16x30 feet at Christy Park. 3 new coal houses 6x8 feet were placed at dwellings at McKeesport, and a new crossing laid for the Yongh Ice Co. At Bissell, a new station house 14x20 feet, and 2,642 square feet of passenger platform were built. 1,725 square feet of platform were built at Christy Park, Dawson and Broad Ford. 170 lineal feet of crib work 4 feet high at Linden Steel Works, 900 feet 8 feet high at Brinton Curve, 140 feet 8 feet high at Soho, 150 feet 10 feet high at Connellsville "Y," and 92 feet 8 feet high at Markleton and Salt Works were built. A trestle 10 feet high and 225 feet long was erected, and 3,683 feet of track laid for the Guffey Coal Co. at Guffeys. Laughlin "Y" trestle was partly raised with 37 bents and chord on the same. 186 feet of the east-bound track at Linden was timbered, and 971 cubic yards of stone built in the retaining wall along 2d avenue at Linden and Laughlin. Falls Cut was partly timbered as a protection against slides. At Wortman Run a trestle 60 feet in length was placed under track where it was washed out by a heavy freshet. The double box culvert at Riverton was found to be inadequate to carry off the water at that point, and was replaced with a 7 foot semi-circular arch culvert; 16,500 brick and 10 cubic yards of stone were used in its construction. 403 yards of brick pavement were laid at the dwelling at McKeesport, and 90 cubic yards of stone laid in the retaining wall at Braddock, and an office 12x14 feet was added to the depot at Connellsville. At Pittsburgh 2,746 cubic yards of stone and 88,800 brick were laid, and 15,440 lineal

feet of piling driven in foundations for the new depot on the corner of Smithfield and Water streets; the Grant street abutment was completed; 4,433 cubic yards of stone were used in its construction. The old coal trestles and buildings were removed from the yard, and the filling up of the same is now in progress, and an opening for a wagon road to the wharf at Ross street, 20 feet wide, 18 feet high and 40 feet long, was timbered up. At Bissell a new water tank of 35,000 gallons capacity, boiler and coal house 14x26 feet were built, and 550 feet of 3 and 4-inch pipe laid to the river. New tanks of 35,000 gallons capacity were built for Glade Run and Broad Ford, and are now ready to set up. 128 cubic yards of stone were laid in the foundation of bridge No. 1, and 2,000 brick and 6 cubic yards of stone in the foundation of the new drill press at the Glenwood Shops.

#### FAYETTE COUNTY BRANCH.

##### M A I N T E N A N C E   A N D   O P E R A T I O N .

*Railway.*—272 tons of steel and 34½ tons of iron rail were used, 1 mile of track reballasted, and 6,769 cross-ties used, including those laid in new sidings.

*Bridges.*—Nos. 311 and 312 were repaired with new chords; wall plates, chords, ties and guard rails were placed on bridge No. 313; chord, ties and guard rail on Nos. 319 and 322. No. 309 was strengthened with new chord, No. 300 repaired with 37 new floor beams and new arches (3 spans of 119 feet each), No. 314 extensively repaired, and the culverts at Watts and Uniontown rebuilt.

*Depots and Buildings.*—At Uniontown the turn-table, cattle pens, platform and bump block, and 1,720 square feet of passenger platform at Dunbar were rebuilt.

## CONSTRUCTION AND IMPROVEMENT.

3-10 of a mile of sidings were built. At Uniontown a new station sign, signal block and a telegraph office 10x10 feet, 2 stories high, were built. 500 feet of 2-inch pipe were laid to connect the water station with the City water, and 940 feet of side track built and connections made for the Columbia Iron & Steel Company. 2 box drains were put in, 1 watch box erected, and 25 bridge numbers placed. 40 feet lineal of crib work 5 feet high, and 80 feet lineal 8 feet high, were built at bridges Nos. 302 and 319, and 3 road crossings laid.

## MT. PLEASANT BRANCH.

## MAINTENANCE AND OPERATION.

*Railway.*—79 tons of steel and 126 tons of iron rail were used; 5-10 of a mile of track reballasted, and 5,422 cross-ties used, including those laid in new sidings.

*Bridges.*—At Broad Ford, the bridge on the east leg of “Y” was repaired with chord and guard rail. Wall plates, ties and guard rail replaced on the bridge at Stauffer, new chord ties and guard rail on the one at Sherrieck, and wall plates, ties and guard rail on the first bridge above “Y,” and the bridge at No. 1 house.

*Depots and Buildings.*—The platform at Everson was repaired, and 1,225 square feet of passenger platform rebuilt at Mullins, Tintsmans and Scottdale. The turn-table at Mt. Pleasant was repaired with ties and decking, and the depot reglazed.

## CONSTRUCTION AND IMPROVEMENT.

2-10 of a mile of new sidings were built, 18 box drains put in, 2 watch boxes, and 1 tool box built, and 3 crossings laid. 284 lineal feet of “I” beams were used in renewing bridges at No. 1 house and first bridge above “Y.” 98 cubic yards of masonry were laid in

foundation for tank at Green Lick, and a new tank of 36,500 gallons capacity built, a boiler and pump placed at the creek and a frame building 14x26 feet erected, a dam 8x10 feet deep built across the creek, and 1,350 feet of 2-inch and 1,350 feet of 4-inch pipe laid.

### STATE LINE RAILROAD.

#### MAINTENANCE AND OPERATION.

*Railway.*—11 tons of steel and 5 tons of iron rail were used; 2-10 of a mile of track reballasted, and 240 cross-ties used, including those laid in new sidings.

#### CONSTRUCTION AND IMPROVEMENT.

2-10 of a mile of new track were laid, and cross-over switches put in at Redstone. 20 box drains were put in, and a new board walk crossing 9x50 feet laid at Uniontown. At Redstone Cut, a new boiler was placed, a pump and coal house 14x37 feet erected, and a temporary tank and engine and centrifugal pump and siphon placed. 50 feet of cribbing 4 feet high was put in, and 500 feet of 2-inch pipe laid to supply the boiler with water.

### O. & B. SHORT LINE.

#### EASTERN DIVISION—MAINTENANCE AND OPERATION.

*Railway.*—15 tons of iron rail were used, 420 cross-ties laid in the track, 1-10 of a mile of track ballasted, and 2 box drains put in.

*Bridges.*—The trestle at Leisenring was extensively repaired.

#### WESTERN DIVISION—MAINTENANCE AND OPERATION.

*Railway.*—3-10 of a mile of track were reballasted with stone, and 683 cross-ties used, including those laid in sidings.

*Bridges.*—Extensive repairs were made on the culvert east of Vance and on bridges Nos. 153, 155 and 156.

#### CONSTRUCTION AND IMPROVEMENT.

1-10 of a mile of new siding was built. The old trestle on Washington Hill 30x500 feet was taken down and shipped to Brinton. 144 lineal feet of "I" beams were placed on bridge No. 151. At Brady Tunnel, 1,056 cubic yards of masonry were laid in 324 lineal feet of side walls and 308,200 brick laid in 263 lineal feet of arch.

#### BERLIN BRANCH.

##### MAINTENANCE AND OPERATION.

*Railway.*—29 tons of iron rail were used, and 3,085 cross-ties laid in the track.

*Bridges.*—The trestles at Seely's ice house, Shobers, and the one North of the water tank were extensively repaired.

#### CONSTRUCTION AND IMPROVEMENT.

A new coal house 8x12 feet was erected at the depot at Berlin.

#### SOMERSET AND CAMBRIA BRANCH.

##### MAINTENANCE AND OPERATION.

*Railway.*—65 tons of steel and 22 tons of iron rail were used, 16,681 cross-ties laid in the track, including those laid in the sidings, and the turn-table at Johnstown repaired with new ties and decking.

*Bridges.*—Bridges Nos. 204, 205, 206 and 207 were extensively repaired. Nos. 211, 213, 216, 221, 228, 229, 231, 232, 233, 234, 238, 240, 244, 252, 253, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265 and 266 were repaired with new ties and guard rails. New wall

plates, chord, ties and guard rail were placed on Nos. 235, 236, 237, 239, 241, 242, 243 and 245. At No. 212, new ties and guard rail were placed on a 33-ft. span, and 30 feet of trestling done at the north approach. No. 214 was moved back 11 feet, and new ties and guard rail put on. At No. 217 the iron bridge was taken down and rebuilt with wood; at No. 218 the iron bridge was washed into the creek. This was taken up and a wooden structure put in its place. Put new ties and guard rails on No. 230, placed 2 vertical posts, trestled and moved it back 5 feet. No. 246 was also moved back 5 feet, and new ties and guard rail put on. Put in a wooden pier and ice breaker at No. 250. No. 251 was moved back 5 feet, and new ties and guard rail put on. The county road bridge, 14x42 feet, south of Friedens, and the trestle at Johnstown turn-table were rebuilt. Bridges Nos. 214, 216, 228, 230, 246, 250, 254, 255, 262 and 265 were painted.

*Depots and Buildings.*—At Johnstown, the station was extensively repaired, painted and glazed on account of being damaged by fire and the cattle pen repaired. 1,794 square feet of passenger platform rebuilt at Milford, Bethel and Johnstown.

*Water Stations.*—Water Stations Nos. 8, 9 and 10 were painted.

#### CONSTRUCTION AND IMPROVEMENT.

2-10 of a mile of new sidings were built; 18 box drains put in, 5 portable platform steps made and 208 lineal feet of fence built. 500 square feet of passenger platform at Kauffman Run and Paint Creek, 35 feet of track between Hooversville and Bethel, and 60 feet lineal of crib work 9 feet high at Mostoller, 65 feet lineal 9 feet high at Stoyestown, and 2 culverts were built. 15 new station signs were made and placed. At Stony Creek, a penstock was erected, and connections made with Johnstown City water. The water station at Kauffman Run was taken down and moved to make room for main track on account of the wash-out. 270 cubic yards of stone were used in the foundation of bridge No. 218.

## SALISBURY BRANCH.

## MAINTENANCE AND OPERATION.

*Railway.*—126 tons of iron rail were used, 5,390 cross-ties laid in the track, 224 feet of box drains and 3 road crossings put in.

*Bridges.*—Piney Run bridge 61 feet in length was rebuilt: trussed bridges east and west of Boyntons were repaired with new track stringers and 10 new floor beams. Hocking trestles Nos. 1, 2, 3 and 4 were repaired with new blocking, and 150 new ties put on.

*Water Stations.*—Water station No. 4 at Shaws was repainted.

## CONSTRUCTION AND IMPROVEMENT.

1 mile of new siding was built, and 500 feet of 14-inch pipe laid from the water station at West Salisbury to the spring.

## BALTIMORE AND OHIO SHORT LINE.

## MAINTENANCE AND OPERATION.

*Railway.*—158 tons of steel and 71 tons of iron rail were used. 7,006 cross-ties were laid in the track, including those laid in new sidings. 5 miles of track were reballasted with stone. The coal trestle at Gastonville was repaired, the scales at Finleyville overhauled, and all switch targets, signal lamps and sign posts repainted.

*Bridges.*—Nos. 74, 75, 77, 85, 88, 96, 97, 98, 99, 100, 101, 102, 103, 121, 124, 126, 128, 130, 133, 134 and 135 were extensively repaired. No. 78 was repaired with a new 25-foot truss, ties and guard rails. New ties and guard rail were placed on No. 149. Extensive repairs were made on culverts at Lick Run, and a culvert 4 feet high, 5 feet wide and 26 feet long was rebuilt west of Anderson. The overhead bridge at White Hall was repaired, and the culvert at Curry rebuilt. Bridges Nos. 143 and 144 were repainted.

*Depots and Buildings.*—The oil house at Finleyville and building at White Hall were repaired. The passenger platforms at Hope Church and Crouehes were rebuilt. Part of the depot at Finleyville was repainted, the metal roofs on the station at White Hall painted, and the seetion house reglazed.

*Water Stations.*—The water stations at Curry, Crouehes and Wylands were painted.

#### CONSTRUCTION AND IMPROVEMENT.

1.4 miles of new sidings were built. 6 crossing signs, 35 box drains and 3 clearanee posts put in. 300 feet lineal of erib work 10 feet high were built at trestles Nos. 77, 96, 98, 103, 121 and 133; bridges Nos. 149 and 150 were renewed with 297 lineal feet of "I" beams. A waiting shed 8x16 feet at Millers Grove, and a watch box on Glenwood bridge were erected and painted. New coal houses 8x12 feet were plaeed at White Hall, Gastonville and Wylands. 100 square feet of passenger platform were built at Curry. A substantial wooden dam was built at Crouehes water station, and the old trans-fer at Riverside removed. 263½ cubic yards of stone were laid in the culvert at Curry, and in the foundation of bridge No. 98.

#### WHEELING, PITTSBURGH AND BALTIMORE R. R.

#### MAINTENANCE AND OPERATION.

*Railway.*—10 tons of steel and 80 tons of iron rail were laid, and 9,471 cross-ties laid in the track, including those laid in new sidings. 8 miles of track were reballasted with stone.

*Bridges.*—Bridges Nos. 159, 163, 175, 176, 181, 182, 183 and 190 were exteusively repaired. No. 157 was repaired with 37 bents, average height 32 feet. Nos. 160, 165 and 185 were repaired with new ties and guard rail. No. 167 with new chord and guard rail, and No. 187 with new chord, ties and guard rail. 31 new beuts were re-

placed in bridge No. 172, and 16 in No. 173, and 24 bents repaired with sash pieces and braces and put on top and center stringing. Repaired No. 174 with a 22-ft. truss over the roadway. Rebuilt a truss bridge 104 feet long at No. 184. Made extensive repairs on trestles at Stone Siding and Coffee's Crossing. 2 road spans, 17 feet wide and 30 feet long, over National Pike near Elm Grove were rebuilt. The culvert east of Elm Grove was repaired.

*Depots and Buildings.*—The dwelling at Washington and the pump house were put in good repair and painted, the Company's house re-glazed and papered, and the depot fitted up with pipes for natural gas. The stock pens at Washington and West Alexander were repaired. 1,810 feet of passenger platform at Taylorstown and Valley Grove were rebuilt, and a new floor 14x16 feet placed in the station at West Alexander. The metal roofs on Elm Grove and Vienna stations were painted.

*Water Stations*—The tank at Taylorstown was raised, extensive repairs made on the one at Point Mills, and the water station at Washington painted.

#### CONSTRUCTION AND IMPROVEMENT.

1.4 miles of new sidings were built, 1 mail crane, 4 crossing signs, 1 bumping block, 71 box drains, 2 tool houses and 2 stop boards were built. 280 feet lineal of crib work 10 feet high were built at bridges Nos. 161, 172 and 174. Bridge No. 178 was rebuilt with a new iron girder 46 feet 10 inches long. Five station signs were erected and painted, and extra rail posts placed along the line. New coal houses 8x12 feet were erected at Taylorstown, Vienna, West Alexander, Point Mills, and Elm Grove stations. 320 square feet of passenger platform were built at West Alexander. Bridges Nos. 166, 178, 180 and 182 were painted, and 3,190 feet of fence built at the Wheeling Stock Yards. No. 2 tunnel was entirely completed; 3,119 cubic yards of masonry laid in the portals, and 816 lineal feet

of side walls, and 1,132,500 brick laid in 798 lineal feet of arch during the year. At No. 6 tunnel 2,057 cubic yards of masonry were laid in 721 lineal feet of side walls, and 1,188,000 brick in 708 lineal feet of arch.

### MACHINERY DEPARTMENT.

#### A. J. CROMWELL, SUPERINTENDENT OF MOTIVE POWER.

During the year 47 locomotives were constructed at the Company's shops at Mt. Clare, and 3 were purchased. Two of the engines built at Mt. Clare, and 3 purchased, have been charged to Rolling Power. Their cost was \$30,913.34. Their description is as follows:

Kind.	Number.	Cylinders.	Drivers.
Switching.....	2	14x22 in.	43 in.
Swi ching.....	2	17x24 "	50 "
Passenger .....	1	19x24 "	66 "

A Car Trust Mortgage for \$2,500,000 was created on February 9th, 1887. Under its terms the following locomotives have been acquired:

Built at	Pattern.	Num.	Cylinders.	Drivers.
Mt. Clare.....	{ Mogul.....	36	19x24 in.	56 in.
	} Passenger..	9	18x24 "	69 "
Pitts. Locomotive Works.....	Mogul .....	15	19x24 "	56 "
Brooks' Locomotive Works.....	{ Mogul.....	1	19x24 "	56 "
	} Passenger..	1	18x24 "	69 "
Rogers' Locomotive Works.....	Passenger ...	10	18x24 "	69 "

Total 72, costing \$593,725.

678 cars were built at the shops of the Baltimore & Ohio Railroad Company, and 1,000 cars were purchased. Of the 678 cars built at the Company's Shops, 314 were charged to Rolling Power. The 1,000 cars purchased were also charged to Rolling Power. The cost of these 1,314 cars was \$606,746.40. The 314 cars built by the Company, and charged to Rolling Power, were of the following descriptions:

12	Baggage.	101	Stone Flat.
1	Passenger.	1	Crane.
1	Combined.	1	Hopper Gondola.
2	Dining.	3	Camp.
26	Express.	1	Barrel.
35	4-Wheel Caboose.	4	Rigger's.
5	8-Wheel Caboose.	1	Refrigerator.
26	Gondola.	14	Refrigerator Express.
11	Box	69	Side Dump.

The cars purchased were 1,000 Gondola.

Under the terms of the Car Trust the following cars have been acquired:

364	Built by Baltimore & Ohio Railroad Company.
2,000	" " Michigan Car Company.
250	" " Litchfield Car & Machine Company.
10	" " Ohio Falls Car Company.
5	" " J. G. Brill & Company.
15	" " Harlan & Hollingsworth Company.
5	" " Jackson & Sharp Company.

Total, 2,649 cars, Costing \$1,502,650.

These 2,649 cars are of the following descriptions: 2,356 34 Ft. Box Cars, 250 Hopper Gondolas, 3 Refrigerator Express, 5 Baggage, 15 Passenger, 10 Sleeping, 10 Parlor.

	1886.	1887.
Engines in service September 30th.....	686	.....
Engines in service September 30th.....	684	.....
Engines acquired under terms of Car Trust.....	72	.....
 Engines in service September 30th, 1887.....	 756	.....

40 Engines have been equipped with Westinghouse Automatic Air Brakes, at a cost of \$14,160.02, and charged to Rolling Power.

234 Engines were thoroughly repaired, costing \$407,163 62, and charged to Repair Account.

	1886	1887.
Cars in service September 30th.....	22,736	.....
Cars in service September 30th.....	23,228	.....
Cars acquired under terms of Car Trust.....	2,649	.....
 Cars in service September 30th, 1887.....	 25,877	.....

110 Cars were equipped with the Westinghouse Automatic Air Brakes, and 640 Cars had their capacity increased. The cost of these improvements was \$45,105.09, which was charged to Rolling Power.

2,434 Cars were thoroughly repaired, 1,801 were repainted, 70 were arranged for the coke trade, and 72 were rebuilt at an aggregate cost of \$452,019.86, which was charged to the Repair Account.

*Engine Mileage for the Fiscal Years 1885-6 and 1886-7.*

	1885-6.	1885-6.	1885-6.
	Passenger.	Freight.	Total.
Main Line Division.....	2,937,648	5,881,158	8,818,806
Philadelphia " .....	51,415	59,246	110,661
Pittsburgh " .....	942,946	1,302,153	2,245,099
	3,932,009	7,242,557	11,174,566
	1886-7.	1886-7.	1886-7.
	Passenger.	Freight.	Total.
Main Line Division.....	3,435,775	6,632,853	10,068,631
Philadelphia " .....	518,729	409,864	928,593
Pittsburgh " .....	975,369	1,380,146	2,355,515
	4,929,873	8,422,866	13,352,739
Increase in Passenger mileage.....			997,864
" " Freight " .....			1,180,309
Total increase.....			2,178,173
	or 19.49 per cent.		

*Car Mileage for the Fiscal Years of 1885-6 and 1886-7.*

REPORT OF THE MANAGER.

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	1885-6. Passenger.	1885-6. Loaded Freight.	1885-6. Empty Freight.	1885-6. Caboose.	1885-6. Totals.
Main Line Division.....	15,011,245	77,136,943	42,049,028	4,711,449	138,908,665
Philadelphia " .....	183,170	530,419	343,966	31,323	1,088,778
Pittsburgh " .....	3,090,454	18,215,654	9,522,581	1,038,543	31,867,232
	18,284,869	95,883,016	51,915,575	5,781,215	171,864,675
	1886-7. Passenger.	1886-7. Loaded Freight.	1886-7. Empty Freight.	1886-7. Caboose.	1886-7. Totals.
Main Line Division.....	17,378,208	86,462,983	42,255,106	5,485,646	151,581,903
Philadelphia " .....	2,190,108	5,506,664	2,176,376	364,506	10,237,654
Pittsburgh " .....	3,228,935	17,775,563	8,156,613	1,123,578	30,284,689
	22,797,251	109,745,210	52,588,095	6,973,690	192,104,246
Increase.....	4,512,382	13,862,194	672,520	1,192,475	20,239,571
Passenger Car Mileage increased.....				24 67 per cent.	
Freight " " .....				10.24 " .....	
General " " .....				11.77 " .....	

During the year 59 bridges were completed at the Mt. Clare shops, at a cost of \$108,040.65, and 15 were in course of construction at the close of the year.

Machinery costing \$27,565.41 was added on the Philadelphia Division, and charged to the cost of the road. Machinery costing \$12,504.55 was added on the Main Line Division, of which \$4,021.27 was charged to New Stationary Machinery, and \$1,944.83 to repairs, being to replace other machinery worn out. \$6,588.45 was charged to Construction, Cumberland Mill. New machinery costing \$690.34 was added on the Pittsburgh Division, and charged to New Stationary Machinery.

The general condition of the machinery in shops is good, and the machinery at the Cumberland Mill is in good working order, and can continue to be run with moderate expense for repairs.

#### SLEEPING, PARLOR AND DINING CARS.

J. S. MERRILL, SUPERINTENDENT.

During the past year ten new sleeping cars, ten parlor cars and two dining cars were placed in service. One parlor car and seven sleeping cars were rebuilt, sixty-one were varnished and slightly repaired, and eight were painted and generally repaired. Twelve old-style sleepers were taken out of service, and are now being converted into coaches.

#### BUREAU OF EXPERIMENTS AND TESTS.

The inspection and analysis of the materials entering into the Company's service during the year, have required three hundred and twenty-one chemical and two thousand eight hundred and fifteen physical tests.

Respectfully submitted,

W. M. CLEMENTS,

*Manager.*

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## Report of the Manager

OF THE

Trans-Ohio Divisions.

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MANAGER'S OFFICE,

BALTIMORE AND OHIO RAILROAD COMPANY.

TRANS-OHIO DIVISIONS.

*Chicago, Ill., October 1st, 1887.*

W. F. BURNS, Esq.,

*President pro tem.*

SIR:—I herewith submit annual report, covering the operations of the following lines, for the fiscal year ended September 30th, 1887:

CENTRAL OHIO DIVISION.

Main track.....	137.29 miles.
Sidings.....	56.63 "
Second track.....	12.60 "
	206.52 miles.

LAKE ERIE DIVISION.

Main track.....	116.25 miles.
Sidings.....	35.62 "
	151.87 "

STRAITSVILLE DIVISION.

Main track.....	44.00 miles.
Branches.....	2.85 "
Sidings.....	8.14 "
	54.99 "

CHICAGO DIVISION.

Main track.....	262.60 miles.
Ills. Cent. R. R. trackage.....	8.40 "
Sidings.....	78.60 "
Second track.....	17.10 "
	366.70 "
	780.08 miles.

*Comparison of the Earnings and Expenses of the Trans-Ohio Divisions, for the Fiscal Years ended September 30th, 1883 and 1887.*

*Comparison of the Expenses of the Trans-Ohio Divisions, for the Fiscal Years ended September 30th, 1886 and 1887.*

*Engine Mileage for the Fiscal Years ended September 30, 1886 and 1887.*

	1885-6.	1885-6.	1885-6.
	Passenger.	Freight.	Totals.
Central Ohio Division.....	467,634	894,341	1,361,975
Lake Erie      ".....	329,798	778,686	1,108,484
Straitsville      ".....	54,630	165,326	219,956
Chicago      ".....	846,188	1,234,574	2,080,762
	1,698,250	3,072,927	4,771,177
	1886-7.	1886-7.	1886-7.
	Passenger.	Freight.	Totals.
Central Ohio Division,.....	602,291	919,670	1,521,961
Lake Erie      ".....	419,846	781,325	1,201,171
Straitsville      ".....	55,332	167,703	223,035
Chicago      ".....	1,058,362	1,058,479	2,116,841
	2,135,831	2,927,177	5,063,008
Increase in Passenger mileage.....	437,581		
Decrease in Freight mileage.....	145,750		
Showing a net increase of Engine mileage of.....	291,831		
or 6.11 per cent.			

Car Mileage for the Fiscal Years ended September 30th, 1886 and 1887.

	1885-6. Passenger.	1885-6. Loaded Freight.	1885-6. Empty Freight.	1885-6. Cableos.	1885-6. Totals.
Central Ohio Division. ....	2,172,203	13,992,864	4,198,430	800,604	21,164,101
Lake Erie	1,580,572	10,884,413	4,826,193	698,825	17,990,033
Straitsville	165,964	1,632,349	1,411,058	149,356	3,358,727
Chicago	4,580,399	23,387,063	11,421,442	1,036,731	40,425,635
	8,499,138	49,896,719	21,857,123	2,685,516	82,938,496
	1886-7. Passenger.	1886-7. Loaded Freight.	1886-7. Empty Freight.	1886-7. Cableos.	1886-7. Totals.
Central Ohio Division. ....	2,817,428	13,312,916	3,820,353	896,913	20,777,610
Lake Erie	2,007,184	10,828,283	4,633,439	713,069	18,181,975
Straitsville	168,622	1,550,413	1,334,580	161,796	3,215,411
Chicago	5,765,169	21,299,727	9,407,795	950,551	37,423,242
	10,758,403	46,991,339	19,196,167	2,652,329	79,598,238
Increase. ....	2,259,265	.....	.....	.....	.....
Decrease. ....	.....	2,905,380	2,660,956	33,187	3,340,238
Passenger Car Mileage increased. ....	.....	.....	.....	.....	26.58 per cent.
Freight " " decreased. ....	7,52	.....	.....	.....	.....
General " " " .....	4.02	.....	.....	.....	.....

The following shows in detail the construction, improvements and repairs effected during the year:

#### CENTRAL OHIO DIVISION.

#### BETWEEN BELLAIRE AND NEWARK.

#### MAINTENANCE AND OPERATION.

*Railway*—1,596 tons of rail, 1,426 tons of steel and 170 tons of iron, were used, and 11.57 miles of track reballasted. 2 miles of wire fence and 29 cattle guards have been rebuilt. 66,242 cross-ties have been placed in the track, including the quantities used in new sidings. 500 feet lineal of box drains have been renewed.

*Bridges*.—16 feet lineal of stringers have been renewed on trestles and 356 feet lineal on bridges. The ties and tie-stays have been renewed on 90 feet lineal of trestles, and 47 floor beams have been renewed on bridges Nos. 7, 8, 9, 11 and 30. The bents have been renewed in the trestles at Mill Run and bridges Nos. 6 and 9. Bridges Nos. 7, 28, 30, 31, 32, 36 and 43 have been materially strengthened. Bridges Nos. 12, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 29, 33, 34, 35, 37, 38 and 39 have been painted. At bridge No. 7, 2 sets of counter-braces have been doubled, and 2 additional sets of main rods put in, and the iron span painted. 43 cubic yards of masonry have been rebuilt in the arch culvert 2 miles west of Concord, and 57½ cubic yards in abutments at bridge No. 14. 700 feet lineal of I beam stringers have been painted. 28 bridge warnings of the standard pattern have been erected.

*Depots and Buildings*.—At Newark, the Dispatcher's office has been moved from the centre to west end of yards remodeled and painted, and a new slate roof put on. The Car Inspector's shop, 12x16 feet, has been rebuilt, and extensive repairs made to the coal chutes. The Globe House has been painted inside and out, and the general office building repaired and painted. 172 feet of 1-inch

water pipe have been laid to the spark pit and 89 feet of 1-inch pipe to the fountain in depot grounds. At Zanesville, 33½ cubic yards of masonry have been rebuilt in foundation of the track scales, and a new scale with the Pusey attachment placed thereon, and the Car Inspector's shop moved and painted. At Cambridge, the stock pens have been rebuilt. At Spencers, an ash pit, 20 feet long, in the engine house, and 72 feet lineal of box drains have been renewed. At Bellaire, 28 squares of new roofing have been placed on the round house, and 50 feet of ½-inch water pipe laid to the depot. At Neff's siding, the dwelling has been extensively repaired. Hand-car houses, 10x12 feet, have been rebuilt at Cambridge, Campbells and Barnesville.

*Water Stations.*—At Bellaire, the tub and supporting trestles have been painted. At Speucers, 72 feet of 4-inch water pipe have been laid from the pump to the well, and the water tub painted. At Concord, 40 feet of 3-inch suction pipe have been laid to the well. At Newark, 16 feet of 1-inch pipe has been put in at ice-house.

#### CONSTRUCTION AND IMPROVEMENT.

3.9 miles of new siding have been built between Bellaire and Newark. 117 feet lineal of iron I beams have been substituted for wooden stringers at stone culverts. At Newark, 485 cubic yards of masonry have been laid in abutments and pier at bridge No. 6, upon which two double-track iron lattice girders, each 76½ feet long, have been erected. 214 cubic yards of masonry have been built for substructure of bridge at the gas house lot, upon which one span of iron plate girder, 27½ feet long, has been erected. 262½ cubic yards of masonry have been built at the crossing of the Ohio Canal, upon which one double track iron plate girder, 33 feet 9 inches long, has been built. These bridges have been constructed in connection with the improved yard and alignment at this station, and have made available all our yard grounds upon which over 2½ miles of new tracks have been laid, and the old track ad-

justed in a manner to handle the heavy business of this divisional station with greater economy and promptness, and furnishing a double track outlet for East Newark yard. At bridge No. 10, over Poverty Run, 209 piles have been driven in preparation for stone abutments, on which 340 cubic yards of masonry have been erected to date of this report. Bridge No. 12, over Muskingum River, which was too light for the heavy class of engines lately built, has been strengthened by auxiliary trusses and is now a substantial structure. At bridge No. 44, 114½ cubic yards of masonry have been built in abutments and protection wall, and one iron span of truss, 132 feet long, erected and painted. At Sonora, a telegraph office, 8x10 feet, with platform, and a hand-car house 10x12 feet, one mile west of the station, have been built. At Burrs' Mills, a coal house, 10x12 feet, has been built. 182 square feet of platform have been built at the Dispatcher's office, Newark, and 15,825 square feet of passenger platform erected at Newark, Cambridge, Quaker City, Marbletown, and on arcade at Bellaire. At Zanesville, a new penstock has been erected at the east end of the yard, and 309 feet of 4-inch pipe laid connecting it with the city main.

#### BETWEEN NEWARK AND COLUMBUS.

##### MAINTENANCE AND OPERATION.

*Railway.*—1,200 tons of steel rail and 38,175 cross-ties have been used, including the quantities laid in second track. 10.88 miles of track have been reballasted, and 5.27 miles of wire fence and 13 cattle guards have been rebuilt.

*Bridges.*—442 feet lineal of stringers have been renewed on trestles, and 200 feet lineal on bridges. The ties and tie-stays have been renewed on 18 feet lineal of trestles. The ties have been renewed in the trussed girders at Pataskala, Grass Creek, Butler's Crossing, Kirkersville, Black Lick, Taylors, Caldwell and Morrison's culvert. The bents have been renewed on the trestles at trussed

girders at Pataskala, Grass Creek, Butler's Crossing, Kirkersville and Caldwell. 14 additional floor beams and 3 additional sets of lateral braces have been put in bridge No. 3.

*Water Stations.*—At Newark, 156 feet of 4-inch pipe have been laid from the pump house to the tub.

#### CONSTRUCTION AND IMPROVEMENT.

The construction of the second track jointly with the P. C. & St. L. Ry., the cost of which is borne equally by each Company, has been continued during the past year between the following points: From Williams' Crossing to Pataskala, a distance of  $5\frac{3}{4}$  miles; from Kirkersville to Union, a distance of 5 miles, and from Lockport to Newark, a distance of 1 mile; a total of  $11\frac{3}{4}$  miles, on which portions of the line the graduation and masonry is completed, and the track laying and ballasting between Kirkersville and Union so far advanced that the new track will be opened for traffic about October 25th, and that portion between Williams' Crossing and Pataskala about November 1st. The graduation for the track between Lockport and Newark is completed, with the exception of the extension of the masonry for the bridge over Raccoon Creek, which is nearing completion. In the construction of the work during the present year, 90,000 cubic yards of excavation was made; 34,000 feet lineal of piling have been driven; 3,100 cubic yards of masonry and 122 cubic yards of concrete have been laid in the extension of stone culverts and substructures of bridges; 2 double-track iron bridges have been erected, and three others are in course of construction; 12 standard cattle guards have been used. When this season's work shall have been completed, the second track on this Division will extend from Newark to Kirkersville, from Pataskala to Williams' Crossing, and from Big Walnut to Columbus, a distance of 24.4 miles, leaving 8.6 miles to complete the double tracking between Newark and Columbus. At bridge No. 1, a substantial iron floor has been substituted for the wooden one; 23 $\frac{3}{4}$  cubic yards of masonry

have been built to raise this bridge to the present established grade. At Summit, a new passenger depot, 16x32 feet, and 1,200 square feet of platform have been built.

### LAKE ERIE DIVISION.

#### MAINTENANCE AND OPERATION.

*Railway.*—444 tons of rail, 374 tons of steel and 70 tons of iron, were used during the year. 11.75 miles of track have been reballasted, and 9.19 miles of fence have been rebuilt—1.13 miles with boards and 8.06 miles with wire. 65,536 cross-ties were used, including those laid in new sidings. 70 cattle guards and 640 feet lineal of box drains have been rebuilt.

*Bridges.*—450 feet lineal of wooden stringers have been renewed on trestles, and all the trestle work on the division thoroughly repaired. At Vanattas, a trussed girder, 29 feet long, has been rebuilt. Bridge No. 8 has been strengthened with 5 additional floor beams. Bridge No. 9 has been strengthened by 2 sets of additional main rods and 18 additional floor beams. 200 feet lineal of track stringers have been renewed at bridge No. 10, and 2 additional sets of main rods and 14 additional floor beams put in. At bridge No. 11, which was destroyed, 4½ cubic yards of masonry have been laid for bridge seats, and 2 iron spans of Keystone bridge, 93 feet 2 inches and 81 feet 1 inch long respectively, have been rebuilt. Bridge No. 14 has been strengthened by 14 floor beams; 80 feet lineal of track stringers have been renewed, and a side-walk 80 feet long built on outside of bridge. Truss bridge No. 15, over Black Fork Creek, has been replaced by one span iron truss, 62 feet 11 inches long from centre of end pins. At bridge No. 16, 104 feet lineal of track stringers and 83 ties have been renewed; 4 additional lateral braces and 6 additional floor beams have been put in. The trussed girder at Mansfield and 740 feet lineal of I beams have been painted.

*Depots and Buildings.*—1,430 square feet of freight platform at Frederick and Mansfield, and 2,936 square feet of passenger platform at St. Louisville, Hunts and Plymouth, have been rebuilt. The sand house at Independence, 12x18 feet; the stock yard at Havana, 26x80 feet, with chute; 1,000 square feet of floor in the freight house at Mansfield, and the floor in the telegraph office at Plymouth, have been rebuilt. The dwelling at Pontiac, and the dwelling and coal chutes at Alta, have been extensively repaired. Hand-car houses, 10x12 feet, have been rebuilt at Independence, Lexington and Shelby Junction. At Sandusky, a new roof has been placed upon the baggage room, and extensive repairs made to the grain elevator, coal derrick, ore trestles and iron ore dock.

#### CONSTRUCTION AND IMPROVEMENT.

3.02 miles of siding have been built, including 1.55 miles of track laid to the Ohio Soldiers' Home, now in course of erection near Sandusky. 224 feet lineal of trestle work, of an average height of 8 feet, has been built on the Soldiers' Home track. 797 feet lineal of iron I beams have been substituted for wooden stringers on trestles. 20 feet lineal of 16-inch tile pipe have been laid in a culvert, 10 feet wide, and the opening filled. At Vanattas, a stock yard, 50x50 feet, with chutes; at Hunts, a freight house, 12x16 feet, and at Higbee, 120 square feet of freight platform, have been built. At Sandusky, 19 cubic yards of masonry have been laid in foundations for track scale at ore yard.

#### STRAITSVILLE DIVISION.

#### MAINTENANCE AND OPERATION.

*Railway.*—764 tons of rail (727 tons of steel and 37 tons of iron) have been used. 1.53 miles of track have been reballasted, and 2.31 miles of wire fence and 20 cattle guards have been rebuilt. 17,518

cross-ties have been placed in the track, including those laid in new sidings. 414 feet lineal of Bristol tunnel have been retimbered.

*Bridges.*—Bridge No. 1 has been materially strengthened by additional main rods, and 17 additional floor beams have been added to the floor system. Bridge No. 2, the track stringers have been renewed; 23 additional floor beams and 8 additional main rods have been put in, and 8 sets lateral braces doubled, and the ties renewed on the south approach. The trussed girder on the south end has been replaced with a trestle work. Bridge No. 3, 8 sets of counter-braces have been doubled, and 7 additional floor beams and 16 additional main rods put in. The trestles north and south of Somerset have been extensively repaired, and 472 feet lineal of iron I beams painted.

*Depots and Buildings.*—At Shawnee, 700 square feet of platform, and the smith shop, 20x30 feet, have been rebuilt.

*Water Stations.*—230 feet of 3-inch water pipe have been laid at Shawnee, and a pump erected.

#### CONSTRUCTION AND IMPROVEMENT.

40 feet lineal of box drains, 34 inches square, and 96 feet, 36 inches square, have been placed for water-way in trestles, and 157 feet of trestle converted into embankment. .09 miles of siding, and .2 miles of new wire fence have been built. 149 feet lineal of iron I beams have been substituted for wooden stringers on trestles.

#### CHICAGO DIVISION.

#### MAINTENANCE AND OPERATION.

*Railway.*—1,801 tons of steel rail were used during the year. 44.72 miles of track have been reballasted, and 25.37 miles of fence —1.73 miles with board and 23.64 miles with wire, and 21 cattle

guards have been rebuilt. 136,744 cross-ties were used, including those laid in new sidings and second track.

*Bridges.*—57 spans of trestle work, aggregating 762 feet in length, have been rebuilt, and 59 trestles extensively repaired. 6 highway bridges, aggregating 491 feet in length, have been rebuilt. The bridge over the Maumee River, at Delaware Bend, has been painted.

*Depots and Buildings.*—At Chicago Junction, the interior of the depot has been painted, and extensive repairs made to the floor of the round house and to the coal chutes. At Tiffin, 3,086 square feet of platform and the railing back of the depot have been rebuilt. The floor on the track scale has been renewed, and the boiler in the water station removed to the engine room of the elevator to furnish power for that building. At Deshler, the interior and exterior of the depot have been painted; the coal chutes rebuilt and the incline extensively repaired. At Hamler, the stock yards have been rebuilt. At Holgate, the dwelling has been extensively repaired. At St. Joe, 1,080 square feet of driveway at the elevator have been rebuilt. At Garrett, 688 square feet of passenger platform have been rebuilt, 368 square feet of floor in the lunch room have been renewed, the plastering removed from the ceiling in the waiting room and replaced with beaded ceiling. 3,900 square feet of flooring and 18 doors in round house, 4 doors in smith shop, 1,083 square feet of flooring in store room, and 1,600 square feet of flooring and 2 doors in machine shop have been renewed; the slate roof on machine shop has been repaired, and extensive repairs made to the coal chutes. At Albion, 700 square feet of passenger platform have been rebuilt. At Syracuse, 500 square feet of passenger platform, and 108 feet of ice chute have been rebuilt; the stock pens have been moved, and new pens, 56x72 feet, erected. At Napanee, 336 square feet of driveway at elevator have been rebuilt. At Bremen, 360 square feet of driveway at elevator and 340 square feet of passenger platform have been rebuilt. The stock yards have been extensively repaired. At Wellsboro, the floors in waiting room

and office have been renewed. At Alida, 578 square feet of driveway at elevator and 416 square feet of floor at the dwelling have been renewed. At Millers, the roof on the depot has been renewed and other repairs made to the building. At South Chicago, the interior and exterior of the depot building, and the skylights and the exterior of the transfer house have been painted; one ventilator and the roof of the round house have been repaired; the smith shop has been moved and re-erected at the north end of the machine shop; 9,700 square feet of flooring in the coach house has been laid and the building braced for better security against wind storms; 2,400 square feet of planking has been laid at the crossing at Commercial avenue. At Chicago, the floor in the gentlemen's waiting room has been renewed and the interior painted; 240 square feet of flooring in the freight office, and 6,072 square feet of flooring in the freight room, 1,000 square feet of freight platform and the floor of the wagon scale have been renewed; the scale house, 7x22 feet, has been rebuilt, and extensive repairs made to the team track. The targets at Deshler and Avilla and the signal on the west end of the drawbridge at Calumet River have been renewed.

*Water Stations.*—At Attica, the water tank, 20 feet in diameter and 16 feet high, has been rebuilt, and 12 feet of 8-inch and 12 feet of 3-inch pipe laid.  $2\frac{2}{3}$  cubic yards of brick masonry have been rebuilt in penstock pit. At Hamler, the water tank, 20 feet in diameter and 16 feet high, has been rebuilt and painted, and 15 feet of 3-inch pipe laid.

#### CONSTRUCTION AND IMPROVEMENT.

10.52 miles of siding and 13.47 miles of second track have been built. The second track on this division now extends from Wilsons to Parkside, a distance of 17.1 miles. 6 new cattle guards have been built, and 41,500 cubic yards of earth have been filled into 2,188 feet lineal of trestle work, converting them into embankment. 8 openings have been made in the track to accommo-

date new public ditches and to provide more efficient drainage to the road bed. 412 feet lineal of iron I beams have been substituted for wooden stringers on trestles. 907 cubic yards of masonry and 135 square yards of boulder paving have been laid in new stone culverts. New mail cranes have been erected at Chalmers and York. At Chicago Junction, a brick extension, 19x20 feet, two stories high, for offices, has been made to the depot. Four new wells, each 75 feet deep, have been sunk, and 500 feet of 5-inch pipe and 40 feet of 4-inch pipe laid. A new water tank, 24 feet in diameter and 16 feet high, is now being erected; 15½ cubic yards of brick masonry have been built for foundation for the pump. A watch box, 6x6 feet, has been built in the west end of the yard. At Tiffin, a brick engine room, 9x20 feet, with slate roof, has been built at the elevator; 22 cubic feet of brick masonry have been built in foundation for the boiler. At North Baltimore, 4 wells, each 38 feet deep, have been sunk, and 152 feet of 5-inch pipe and 180 feet of 2-inch pipe laid. At Chalmers, 400 square feet of platform have been built. At Deshler, an addition, 14x20 feet, with tin roof, has been made to the depot; a Car Inspector's shop, 10x12 feet, and 432 square feet of sidewalk have been built. At Standley, a telegraph office, 10x12 feet, has been built. At Defiance, 360 square feet of sidewalk have been built. At Hicksville, 392 square feet of platform have been built; 3 wells, each 50 feet deep, and 3 wells, each 120 feet deep have been sunk, and 200 feet of 2-inch pipe and 360 feet of 5-inch pipe laid. At Garrett, a frame store room, 24x36 feet, with slate roof, and an extension, 13x16 feet, with slate roof, to engine room at saw shop, and a wood house, 10x38 feet, have been built. A room, 11x24 feet, has been partitioned in the engine house for dynamo, and electric lamps erected to light the shop and depot grounds; a tool room, 19x24 feet, partitioned in the machine shop. A slate roof has been put on the boiler house. Four new wells, of an average depth of 52½ feet, have been sunk in the round house, and 270 feet of water pipe laid connecting the wells with the pumps, for washing boilers; 1,596 feet of 6-inch pipe and 675 feet of 4-inch pipe have been laid

in the shop yards, and five fire plugs put in for the protection of the shop buildings and lumber sheds. 58 cubic yards of masonry have been laid in foundations for machinery. At Albion, 990 square feet of sidewalk have been built. At Cedar Beach, a neat passenger shed, 9x38 feet, has been erected and painted, and 720 square feet of additional platform built. At Bremen, a coal house, 10x12 feet, and an addition to the stock yard, 45x85 feet, have been built, and six bins in the elevator have been ceiled. At La Paz Junction, a joint station building and 600 square feet of passenger platform have been erected. At Alida, an addition, 14x14 feet, has been built to the dwelling. At Suman, 150 feet of 4-inch water pipe have been laid. A telegraph office, 12x16 feet, and train order signal have been erected at the end of the double track at Wilson's. The telegraph office, 10x12 feet, formerly at Whitings, has been moved to Wilson's and fitted up as a sleeping room for the telegraph operator. At South Chicago, a watch box, 5x8 feet, at 91st street; a coal house, 12x60 feet, and 288 square feet of sidewalk have been built; 960 square feet of planking have been laid between the tracks at Ewing avenue crossing. A new penstock has been erected and 250 feet of 6-inch water pipe laid. 3½ cubic yards of brick masonry and 181 cubic yards of stone masonry have been laid in foundations for transfer grain elevator and elevator machinery. At Chicago, an additional refrigerator room, 12x32 feet, has been placed in the freight house, and 1,400 square feet of express platform built.

Respectfully submitted,

W. W. PEABODY,

*Manager.*

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# M O R T G A G E

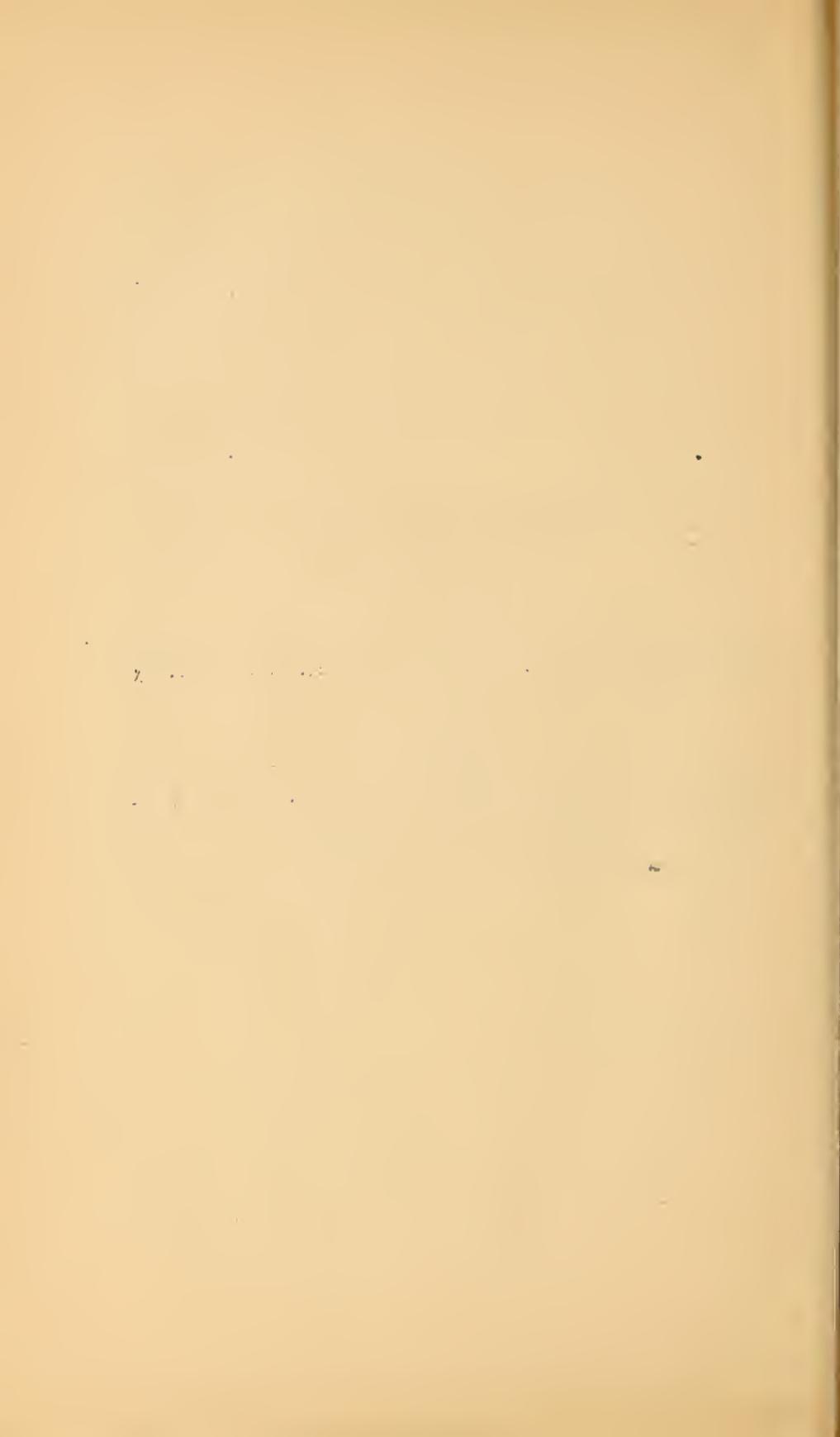
FROM

The Baltimore & Ohio Railroad Company

TO THE

Mercantile Trust and Deposit Company of  
Baltimore, Trustee.

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# MORTGAGE

FROM

THE BALTIMORE & OHIO RAILROAD COMPANY

TO THE

MERCANTILE TRUST AND DEPOSIT COMPANY  
OF BALTIMORE, TRUSTEE.

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THIS INDENTURE, made this ninth day of February, in the year Eighteen Hundred and Eighty-seven, between The Baltimore and Ohio Railroad Company, a Corporation duly incorporated under the laws of the State of Maryland, party of the first part, and the Mercantile Trust and Deposit Company of Baltimore, a corporation duly incorporated as aforesaid, Trustee, for the uses and purposes and upon the terms and conditions hereinafter stated, party of the second part:

WHEREAS, a certain Agreement has been entered into between certain individuals constituting The Baltimore and Ohio Car Trust Association as parties of the first part, and the Mercantile Trust and Deposit Company of Baltimore, Trustee, party of the second part, and the said Baltimore and Ohio Railroad Company, party of the third part, of date the first day of January, Eighteen Hundred and Eighty-seven, and which is now in the custody and possession of the said Trustee, wherein it is covenanted and agreed, among other things, that the said Baltimore and Ohio Car Trust Association has been formed for the purpose of buying, and leasing and selling railroad equipment, rolling stock, cars and locomotives unto the said Baltimore and Ohio Railroad Company: And

WHEREAS, the said Baltimore and Ohio Railroad Company has covenanted and agreed to purchase the said rolling stock and equipment under certain terms and conditions in said agreement mentioned: And

WHEREAS, said purchase has been made by the said Baltimore and Ohio Railroad Company from the said Mercantile Trust and Deposit Company of Baltimore as Trustee for the parties beneficially interested in the said Car Trust, title only to be vested in said Baltimore and Ohio Railroad Company subject to the performance of the conditions of this mortgage: And

WHEREAS, it has been agreed that this mortgage shall be executed to secure the payment of the purchase money for the same: And

WHEREAS, the President and Board of Directors of the said party of the first part, at a meeting held at its office in the city of Baltimore on the ninth day of February in the year Eighteen Hundred and Eighty-seven, adopted by a majority of the votes of the said President and Directors, and with the unanimous concurrence of all who were present at said meeting, certain resolutions in the words following to wit :

WHEREAS, in order to acquire additional rolling stock, railroad equipment, cars and locomotives for the exigencies of the service of the said Railroad Company, and to provide for the payment of the same, it is necessary for this Company to issue its mortgage bonds as hereinafter set forth;

*Resolved*, that this Company make and issue its Car Trust Bonds payable to the Mercantile Trust and Deposit Company of Baltimore, Trustee, or bearer, for the aggregate sum of Two Million Five Hundred Thousand Dollars, which bonds shall be of the denomination of One Thousand Dollars each, and shall be numbered consecutively from one to two thousand five hundred both inclusive, and shall be dated January first, Eighteen Hundred and Eighty-seven, and shall mature and be payable one-tenth thereof one year after said date, and one-tenth yearly thereafter, and shall be substantially of the same tenor and date, except as to date of maturity and number, and shall be classified in said yearly series as, Class A for those maturing at the expiration of one year from said date, Class B for those maturing two years from said date, Class C for those maturing three years from said date, Class D for those maturing four years from said date, Class E for those maturing five years from said date, Class F for those maturing six years from said date, Class G for those maturing seven years from said date, Class H for those maturing eight years from said date, Class I for those maturing nine years from said date, Class K for those maturing ten years from said date, with interest thereon in the meantime at the rate of four and one-half per centum per annum, payable semi-annually on the first days of July and January in

each year, commencing from January first, Eighteen Hundred and Eighty-seven, the principal and interest thereof payable at the office of the said Mercantile Trust and Deposit Company of Baltimore in the city of Baltimore upon presentation and surrender of the said maturing bonds and coupons at the dates therein limited :

*Resolved*, that for the purpose of securing the payment of the said bonds, and interest which shall accrue thereon, this Company shall make, execute and deliver to the Mercantile Trust and Deposit Company of Baltimore, Trustee, a mortgage of all and singular the said rolling stock, railroad equipment, cars and locomotives of whatsoever nature and description so purchased by it from the said Mercantile Trust and Deposit Company of Baltimore as Trustee for The Baltimore and Ohio Car Trust Association, and such mortgage shall be in trust for the benefit and security of the holders of such bonds to the extent aforesaid without preference, priority or distinction as to lien or otherwise, so that each bond to be issued shall have the same right, lien or privilege and security thereunder as though they had all been executed and delivered simultaneously with the execution and delivery of said mortgage :

*Resolved*, that the President and Secretary of the Baltimore and Ohio Railroad Company be and they are authorized and empowered, for and on behalf of this Company, to affix its corporate seal to each of said bonds, and to sign the same as such President and Secretary, and when so executed to deliver the same to said Trustee. In the execution of the coupons attached to said bonds the signature of the Treasurer of the Company engraven thereon shall be regarded and treated as in all respects in fact and law equivalent to the manual signing thereof; that the bonds so to be issued and the coupons to be thereunto attached shall be substantially in the form following, to wit :

<i>No.</i> —	<i>Series</i> —	\$1,000.
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UNITED STATES OF AMERICA.

STATE OF MARYLAND.

THE BALTIMORE AND OHIO RAILROAD COMPANY.

CAR TRUST BONDS.

*Total Issue \$2,500,000.*

*Know all men by these presents, that The Baltimore and Ohio Railroad Company, a Corporation of the State of Maryland, ac-*

knowledges itself indebted to the Mercantile Trust and Deposit Company of Baltimore, Trustee, or Bearer, in the sum of One Thousand Dollars, which sum it promises to pay to the bearer hereof at the office of the said Trustee, in the city of Baltimore, in the lawful gold coin of the United States of America, of the present standard of weight and fineness, on the first day of January, in the year 18\_\_\_\_\_, with interest thereon at the rate of four and one-half per cent. per annum, payable in like gold coin semi-annually at its said office, on the first days of July and January in each year, upon the surrender of the annexed coupons therefor, until the principal sum shall be fully paid.

This Bond is one of a series of bonds of One Thousand Dollars each, numbered consecutively from one to two thousand five hundred both inclusive, and amounting in the aggregate to Two Million Five Hundred Thousand Dollars, secured by and subject to all the provisions of a mortgage to the Mercantile Trust and Deposit Company of Baltimore, Trustee, bearing date the ninth day of February, Eighteen Hundred and Eighty-seven, on all the rolling stock, railroad equipment, cars and locomotives mentioned therein, and acquired by the said Baltimore and Ohio Railroad Company by purchase from the said Trustee, as will more fully appear by the said mortgage securing the Bonds of this issue, duly executed and delivered to the said Trustee, and duly recorded, to which mortgage reference is made for the provisions thereof and the full conditions hereof. One-tenth of said Bonds mature one year after the date hereof, and one-tenth yearly thereafter, according to the series or classification thereof mentioned in said mortgage.

This Bond shall not become obligatory until the certificate endorsed hereon is duly signed on behalf of the Trustee named in the aforesaid mortgage.

IN WITNESS WHEREOF, The Baltimore and Ohio Railroad Company has caused its corporate seal to be hereunto affixed, and the same to be attested by the signatures of its President and Secretary, this first day of January in the year One Thousand Eight Hundred and Eighty-seven.

*President.*

Attest :

*Secretary.*

[*Form of Coupon.*]

On the first day of 18\_\_\_\_\_, The Baltimore and Ohio Railroad Company will pay to the Bearer hereof Twenty Two

Dollars and Fifty Cents, at the office of the Mercantile Trust and Deposit Company of Baltimore, in the city of Baltimore, being six months' interest on its Car Trust Bond No. Series

*Treasurer.*

[*Trustee's Certificate.*]

This Bond is one of a series of Two Thousand Five Hundred Bonds, each of the denomination of One Thousand Dollars, secured by the Mortgage or Deed of Trust referred to within.

*Mercantile Trust and Deposit Company  
of Baltimore, Trustee, by*

*President.*

AND WHEREAS, at said meeting of the Board of Directors, the form of this Mortgage having been then and there submitted and entered upon the Minutes, it was

*Resolved*, that the form of the Mortgage submitted by the President is hereby approved, and that such mortgage be made and executed by this Company under its corporate name, subscribed by its President or Vice-President, and with its corporate seal thereto affixed, attested by its Secretary, and when so executed that it be duly acknowledged so as to entitle it to be recorded in pursuance of the laws of the State of Maryland, and when so acknowledged that it be delivered to the said Trustee and duly recorded:

NOW THEREFORE THIS INDENTURE WITNESSETH: That the said party of the first part, for the purpose of securing the payment of the principal and interest of the said bonds so issued for the purpose of purchasing the said rolling stock, equipment, cars and locomotives hereinafter more specifically designated, when and as the said bonds and coupons shall become due and payable according to the tenor and effect thereof, and in consideration of the premises, and of the sum of one dollar lawful money of the United States of America to it in hand paid by the party of the second part at the time of the execution and delivery of these presents, the receipt whereof is hereby acknowledged, has granted, bargained, sold, assigned, conveyed, and set over, and by these presents does grant, bargain, sell, assign, convey, and set over unto the said party of the second part and to its successor or successors in the trust hereby created, and to its and their assigns, all and singular the rolling stock, railroad equipment, cars and locomotives more particularly described as follows:

No. OF Car, etc.	SCHEDULE.	PRICE OF EACH CAR etc.	TOTAL.
5	Baggage Cars, Nos. 101—105.....	\$2,097 00	\$ 10 485 00
500	Hopper Gondolas, Nos. 5002—5501.....	372 50	186 250 00
356	Box Cars, Nos. 34002—34168 and 34302—34490	465 00	165 540 00
2000	Box Cars, Nos. 35000—36999.....	465 00	930,000 00
10	Parlor Cars, Nos. 726—735.....	10,200 00	102,000 00
15	Buffet Sleeping Cars, Nos. 559 and 572—585	13,500 00	202,500 00
10	Sleeping Cars, Nos. 549—558.....	13,000 00	130,000 00
10	Passenger Cars, Nos. 617—626.....	5,000 00	50,000 00
5	"      "      "      627—631.....	4,700 00	23,500 00
15	"      "      "      632—646.....	4,800 00	72,000 00
15	Mogul Engines, Nos. 950—964.....	8,000 00	120,000 00
10	18x24 Pass. Engines, Nos. 764—773 .....	7,975 00	79,750 00
1	"      "      "      774.....	7,975 00	7,975 00
1	Mogul Engine, No. 980.....	8,000 00	8,000 00
9	18x24 Pass. Engines, Nos. 754—761 and 775.	8,000 00	72,000 00
40	Mogul Engines, Nos. 947—949; 965—979; { and 981—1002..... }	8,500 00	340,000 00
			\$2,500,000 00

Making in all the sum of Two Million Five Hundred Thousand Dollars, said rolling stock and equipment having been this day purchased at the aforesaid prices, and the title thereto vested simultaneously with the execution of these presents in the said Railroad Company subject to all the conditions of this mortgage :

TO HAVE AND TO HOLD the same to said party of the second part and its assigns and to its successors in said trust and their assigns in trust for the purpose following, to wit :

ARTICLE I.—For the equal benefit and security of all and every the persons and bodies corporate who shall be or at any time may become the holders of the said Bonds, or of such of them as shall be issued by the party of the first part, without preference, priority or distinction as to lien or otherwise of any of the said bonds over the others by reason of priority in the time of issuing the same, and so that each and all of the said bonds issued and to be issued as aforesaid shall have the same right of lien and privilege under and by virtue of this mortgage, and shall all be equally secured hereby with like right and effect as if they had all been executed and delivered simultaneously herewith. It being the intention and purpose of this mortgage that the property above described of the party of the first part shall be pledged to secure the payment of the afore-mentioned bonds of the party of the

first part as above set forth, and the interest thereon according to the true tenor and effect thereof.

**ARTICLE II.**—If the party of the first part shall punctually well and truly pay the principal of the aforesaid bonds and the interest thereon, in semi-annual instalments, according to the tenor and effect of said bonds, then these presents and estates, rights and interests hereby granted shall cease, determine and become of no effect; and until a default shall be made by the party of the first part in the due and punctual payment of the principal sum as the said bonds shall respectively mature, or of the interest thereon, the said party of the first part shall be entitled to remain in the possession, use and enjoyment of the said railroad equipment, rolling stock, cars and locomotives as hereinbefore mentioned and described.

**ARTICLE III.**—If the said party of the first part, its successors or assigns, shall at any time hereafter make default or refuse, neglect or omit for any period exceeding ninety days to pay said bonds as they mature in the series aforesaid, or to pay the semi-annual interest on said bonds intended to be hereby secured, or any of them, or shall refuse or fail to keep or perform any of the covenants or stipulations contained herein, or in the said bonds secured or intended to be secured hereby, or on its part to be kept or performed, then and in either of such events the party of the second part, upon written request of the holders of one-fourth in amount of the bonds secured hereby and then outstanding shall demand, and with such force as may be necessary enter upon, take and maintain possession of all and singular the said rolling stock, railroad equipment, cars and locomotives herein mentioned and described, and any which may be substituted therefor, and as the attorney in fact or agent of the said party of the first part by its agents and substitutes duly constituted, have, hold, use, manage, operate and enjoy the same to as full an extent as the party of the first part might lawfully do, and shall take and receive the income, tolls and profits thereof, and shall likewise proceed under the order or decree of any court of equity or other competent court having jurisdiction in the premises, and sell and dispose of, as by said court may be ordered or decreed, and thereupon to convey to the purchaser or purchasers, free from any right or claim of equity of redemption of the said party of the first part, its successors or assigns, all and singular the said personal property hereinbefore described, and any other locomotives, cars or rolling stock substituted therefor hereby mortgaged or conveyed in trust or agreed, or intended so to be, and from the net proceeds realized by means of such use and occupation and from such sale, or from either, in the first place to retain and pay all proper costs, charges and disbursements incurred in and about

the premises, including the reasonable compensation of the said Trustee, and then to apply the balance of such net proceeds to or towards the payment or discharge, with pro rata equality, of the principal and interest at such time owing and unpaid of and upon the said bonds hereby secured, whether the same be then due or to become due, and without preference of principal over interest or of interest over principal, rendering or paying any surplus which may then remain after the full satisfaction of the principal of the said bonds, and every of them, and the interest thereon, to the said party of the first part, its successors or assigns.

And the said party of the first part hereby agrees, that in case of any default on its part as aforesaid, it will not set up, claim or seek to take advantage of any valuation, stay of execution, appraisement or extension laws which may or might prevent, postpone, hinder or delay the exercise of the right of the party of the second part to enter upon, take possession of, operate or sell the mortgaged property, or any part thereof, or the immediate enforcement or foreclosure of this mortgage, or the absolute sale of the said mortgaged property thereunder, without and free from appraisement, valuation, stay or other condition or hindrance, but will and does hereby waive the benefit of any and all such valuation, stay, appraisement or other laws to such effect as aforesaid.

ARTICLE IV.—If the party of the first part, its successors or assigns, shall at any time hereafter make default, or refuse, neglect or omit for any period exceeding ninety days to pay the semi-annual interest on the bonds intended to be secured, or any of them, or the bonds maturing serially as hereinbefore mentioned, then the holders of one-fourth in amount of said bonds then outstanding may elect to declare the whole principal sum thereof to be due and payable, and may by an instrument in writing under their hands and seals instruct said Trustee to declare said principal sum to be due and payable, whereupon the whole principal sum of each and all of said bonds then outstanding shall forthwith be due and payable, notwithstanding that the time limited therein for the payment thereof may not then have elapsed. And in the event of any sale of the said personal property, railroad equipment, rolling stock, cars or locomotives, as above mentioned or intended so to be, then and in such case the whole principal sum of each and all of the said bonds then outstanding and intended to be secured hereby, shall forthwith be due and payable, notwithstanding that the time limited therein for the payment thereof may not then have expired; and in no other case and for no other purpose except as in this Article provided, shall the principal sum of any of said bonds become due and payable before the date fixed in said bonds for the payment thereof.

ARTICLE V.—And the party of the first part doth hereby covenant with the party of the second part and its successors, for and on behalf of the bondholders entitled to the benefit of the security hereby provided or intended so to be, that the said party of the first part shall and will at any time and at all times hereafter, upon reasonable request, make, do and execute all such other and further reasonable assurances, acts, deeds and things as in the opinion of competent counsel may be necessary or proper to effectuate the lien and security hereby intended to be created for the benefit of all such bondholders, and especially to render subject to the lien of this mortgage any and all of the rolling stock or equipment which may have been purchased in substitution for like rolling stock or equipment injured or destroyed.

ARTICLE VI.—And it is hereby further declared and agreed that every such car and locomotive purchased from the said party of the second part, as Trustee, and delivered to the party of the first part and accepted by it, shall be marked as follows on the body thereof: "B. & O. The Baltimore and Ohio Car Trust, No. . . The Mercantile Trust and Deposit Company of Baltimore, Trustee." An inventory or schedule of the said property shall be made from time to time, as delivered, of all such cars and locomotives purchased by the said party of the first part and by it placed upon its railroad, containing memoranda of the date of such delivery, and the original cost of each separate article in lawful money of the United States. And in addition to the said above mentioned sums of money, to wit: the principal and interest of the said bonds, the said Baltimore and Ohio Railroad Company shall pay unto the Trustee a sum which shall be equal to the necessary expenses of the Trust, including an annual compensation for the said Trustee, which shall be a full compensation for all services in any manner rendered by the said Trustee, the said sum to be paid yearly when demanded by the said Trustee.

And the said Baltimore and Ohio Railroad Company, for itself, its successors and assigns, further covenants and agrees to and with the said Mercantile Trust and Deposit Company of Baltimore, Trustee as aforesaid, its successors and assigns, that it, the said Baltimore and Ohio Railroad Company, its successors and assigns, shall and will, at its own proper cost and expense, keep and maintain the said cars and locomotives, equipment and rolling stock in good order and repair, and shall and will replace at its own cost any of the same that may be destroyed from any cause whatever, during the continuance of this trust, by other like equipment, cars, locomotives and rolling stock of equal value and material, character and construction; and shall and will mark or cause to be marked each and every car, locomotive or article of rolling stock and equipment, with the words "B. & O. The Bal-

timore and Ohio Car Trust, No.— The Mercantile Trust and Deposit Company of Baltimore, Trustee," as hereinbefore provided; and will not allow the name, or designation of any other railroad company to be placed on any such equipment.

And the said party of the first part doth further covenant and agree to and with the said party of the second part, that it will through its General Manager, or other proper officer or agent, furnish to the said Trustee, once in every year during the continuance of this Trust, and on or before the first day of January in each year, an accurate statement of said equipment and rolling stock which it may then have in actual service subject to the terms of this Trust, the number and description of all that may have been destroyed and substituted during the year preceding, and also the number then undergoing repairs and in the shops of said Railroad Company for repairs; and that the said Trustee shall have the right to inspect the said equipment and rolling stock once in every year during the continuance of this Trust by any person to be appointed by the said Trustee, and such person or agent shall be furnished with the necessary authority to travel without charge over the Railroad of the said party of the first part for the purpose of making such inspection.

And the said party of the first part doth further covenant and agree that it will not assign or transfer or underlet any of the said equipment or rolling stock without the consent of the said Trustee to be in writing, and that any rolling stock or equipment exchanged for the same, or substituted therefor, or added thereto by purchase from the said Trustee, shall be and become subject to all the trusts hereby declared, and if it shall so be required by the said Trustee shall be conveyed in mortgage by the party of the first part to the said Trustee to be by it held subject to the provisions of this Trust.

ARTICLE VII.—And it is hereby further declared and agreed, that in case of vacancy in any way occurring in such Trusteeship, such vacancy shall be filled by the appointment of a new Trustee or Trustees, by any Court in the State of Maryland, either State or United States, having jurisdiction in the premises; which appointment shall be made upon the written request of the Managers of the Baltimore and Ohio Car Trust, giving such previous notice by publication as the said Court may direct, or on application of any of the holders of said bonds hereby secured, giving such previous notice as the Court may direct; and each new Trustee thus from time to time appointed to fill such vacancy shall upon such appointment, without further act, deed or conveyance, become and be vested fully with and subject to the estates, rights, powers and duties of the former Trustee in whose place he or it

shall be appointed ; but nevertheless the retiring Trustee or representatives of the estate of the Trustee, shall, if required, make, do and execute any acts deeds or things which shall be requisite or proper fully to convey or confirm to any such substituted Trustee such estates, rights and powers formerly vested in the Trustee whom he or it shall succeed.

ARTICLE VIII.—And it is hereby further covenanted and agreed, that in case the re taking of the personal property hereby conveyed shall be made by the said party of the second part, or in the event that the said party of the second part shall demand the possession of the same under any of the covenants in this mortgage contained, that then the said party of the first part shall, without cost or charge to the said Trustee or to those beneficially interested in said trust, forthwith in the usual manner and at the usual speed of freight trains, draw the said equipment and rolling stock to such point or points on its railroad as shall be reasonably designated by the said Trustee as the point or points at which the said equipment or rolling stock shall be withdrawn from the said railroad.

ARTICLE IX.—And it is hereby further covenanted and agreed, and the trusts created by this instrument are accepted on the express condition that the Trustee shall not incur any liability or responsibility whatever in consequence of permitting or suffering the party of the first part to retain or have possession of the said railroad equipment, rolling stock, cars and locomotives hereby mentioned as mortgaged or agreed or intended so to be. Nor shall the said Trustee be or become responsible or liable for any destruction, deterioration, loss, injury or damage which may be done or occur to the property hereby mortgaged or intended so to be.

ARTICLE X—In the execution of the coupons secured by these presents, the signature of the Treasurer of the party of the first part engraven thereon shall be regarded and treated as in all respects in fact and in law equivalent to the manual signing of the said coupons.

ARTICLE XI.—If the party of the first part shall well and truly pay the sums of money as provided by the said bonds secured hereby, and the coupons thereto attached required to be paid by it as the same shall mature and become due and payable, which said sums the said party of the first part doth hereby covenant to pay as the same shall become due and payable, and shall well and truly keep and perform all the covenants, agreements and undertakings herein and hereby assumed and required to be kept and performed according to the true intent and meaning of these

presents, then and in that case the estate, right, title and interest of the said party of the second part, Trustee, or its successors, shall cease and determine and become void ; and the said Trustee shall by a sufficient instrument in writing, if so thereto requested by the party of the first part, execute a release of this mortgage, whereby all the estates, title, right and interest of the said Trustee shall cease and determine ; and the said party of the second part hereby accepts the trusts herein created, and covenants to execute the same.

And the said Baltimore and Ohio Railroad Company doth hereby appoint John K. Cowen as its attorney for and on its behalf to acknowledge this instrument as its act and deed.

And the said Mercantile Trust and Deposit Company of Baltimore doth hereby appoint Arthur George Brown as its attorney for and on its behalf to acknowledge this instrument as its act and deed.

IN WITNESS WHEREOF the parties hereto have caused their respective coporate names to be hereunto subscribed by their respective officers duly authorized, and their respective corporate seals to be affixed attested by their respective Secretaries on the day and year first above written.

The Baltimore and Ohio Railroad Company, by

SAMUEL SPENCER,

*Vice-President.*

SEAL.

Attest :

W. H. IJAMS,

*Secretary.*

Signed, sealed and delivered in the presence of

E. J. D. CROSS.

The Mercantile Trust and Deposit Company of Baltimore, Trustee, by

JOHN GILL,

*President.*

SEAL.

Attest :

L. C. FISCHER,

*Secretary.*

Signed, sealed and delivered in the presence of

E. J. D. CROSS.

STATE OF MARYLAND,

*City of Baltimore, ss.*

I hereby certify that on this ninth day of February, in the year 1887, before the subscriber, a Justice of the Peace of the State of Maryland in and for the city of Baltimore, personally appeared John K. Cowen, the attorney duly appointed in the foregoing instrument by the Baltimore and Ohio Railroad Company, and acknowledged the said instrument to be the act and deed of the said corporation.

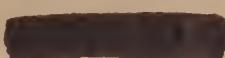
And at the same time also personally appeared Arthur George Brown, the attorney duly appointed in the foregoing instrument by the Mercantile Trust and Deposit Company of Baltimore, and acknowledged the same to be the act and deed of the said corporation.

And also at the same time before me personally appeared John Gill, the President of the said Mercantile Trust and Deposit Company of Baltimore, Trustee, as therein mentioned, and for and on behalf of the said corporation made oath in due form of law, on the Holy Evangel of Almighty God, that the consideration stated in the said instrument is true and bona fide as therein set forth, and that he is the President and Agent of said Corporation, Mortgagee under the foregoing instrument.

ROBERT A. THURSBY, *J. P.*

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